KATALAN-GATEVA, Sh.

Ecologic analysis of the nematode fauna of cultivated and wild plants in the Thracian Valley. Godishnik biol 54/55 no.1:157-169 '59/60-'60/61 [publ. '62].

KATALAN-GATEVA, Sh.

Konstantin Ivanovich Skriabin at 85. Prir i znanie 17 no. 2: 19-20 F '64.

KATALAYEV, A.A.; ABDULLAYEV, S.G., kand. sel'skokhoz. nauk; VINOGRADOV, A.V., starshiy nauchnyy sotrudnik

Effectiveness of systematic preparations in orchards. Zashch. rast. ot vred. i bol. 7 no.10:27-28 O '62. (MIRA 16:6)

1. Kubinskiy plodovyy sovkhoz No. 12 i Azerbaydzhanskaya stantsiya Vsesoyuznogo instituta zashchity rasteniy. 2. Glavnyy agronom Kubinskogo plodovogo sovkhoza No. 12 (for Katalayev).
(Azerbaijan—Fruit—Diseases and pests)
(Insecticides)

BALOGH, Karoly; KATALIN, Petrucz

Studies on the pathogenic and neutral film on the tooth examined by biosynthetic methods. Kiserl. orvostud. 14 no.1:56-61 Mr '62.

1. Budapesti Orvostudomanyi Egyetem Szajsebeszeti Klinikaja.
(DENTAL CARIES etiol)

L 32149-66

ACC NR: AT6023525 SOURCE CODE: HU/2505/65/027/002/0119/0123

AUTHOR: Porszasz, Janos--Porsas, Ya.; Barankay, Tamas--Barankai, T.; Porszasz-Gibiszer, Katalin--Gibiser-Porsas, K. 19 B+1

ORG: Institute of Physiology, Medical University of Szeged (Szegedi Orvostudomanyi Egyetem, Elettani Intezet); Department of Stomatology, Medical University of Szeged (Szegedi Orvostudomanyi Egyetem Fogaszati klinika); Institute of Pharmacodynamics, Medical University of Szeged (Szegedi Orvostudomanyi Egyetem, Gyogyszerhatastani Intezet) 22

TITLE: Studies of the neural connection between the hypothalamic depressor and vasodepressor areas in the cat

SOURCE: Academia scientiarum hungaricae. Acta physiologica, v. 27, no. 2, 1965, 119-123

TOPIC TAGS: neurology, cat, nervous system, blood pressure, reflex activity

ABSTRACT: The neural connection between the hypothalamic depressor area and the vasodepressor area of the medulla oblongata has been studied in the cat. It was found that the fall in blood pressure, evoked by hypothalamic stimulation, failed to develop after dorso-ventral division of the medulla oblongata, at the height of the facial cranial nerve, over a width of 2-3 mm on both sides of the center line. Transection of this kind does not impair the effect of hypothalamic pressor impulses nor does it paralyze the vasomotor center. Presumably, there is a direct neural connection between the hypothalamic depressor area and the vasodepressor area of the medulla oblongata. It is suggested that the depressor area constitutes a vasodepressor reflex center which receives impulses both from the periphery and from the higher nervous centers. Orig. art. has: 4 figures. [Orig. art. in Eng.] [JPRS]

SUB CODE: 06 / SUBM DATE: 19May64 / ORIG REF: 002 / OTH REF: 004

Card 1/1 LC

0915 1485

KOSHTOYANTS, Kh.S.; KATALIN, Rózha

Enzymatic and chemical foundation of taste sensitivity [with summary in English]. Biofizika 3 no.6:689-692 '58. (MIRA 12:1)

1. Biologo-pochvennyy fakul'tet Moskovskogo gosudarstvennogo universiteta im. M.V. Lomonosova.
(TASTE, physiol.
enzymatic mechanism (Rus))
(ENZYMES, physiol.
in taste sensitivity (Rus))

KATALIN, Sholt [Katalin, Solt]

Some problems of the epidemiology of hepatitis in the Hungarian People's Republic. Vop.med.virus. no.9:123-131 '64. (MIRA 18:4)

1. Gosudarstvennyy institut zdravookhraneniya, Budapesht, Vengriya.

KATALINI, T.

KATALINI, T.,. What we should know about phylloxera (Phylloxera vitifolii fitee). p.12.

Vol. 9 no. 8, August 1955 Tirane, Albania PER BUJQESINE SOCIALISTE

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 10, Oct. 1956

KATALINIC, A.

KATALINIC, A.; STOJANOV, D. "Maneuvers with the assistance of the pharmaceutic branch of the sanitary service."
Vojni Glasnik, Beograd, Vol 7, No 10, Oct 1953, p. 70

SO: Eastern European Accessions List, Vol 3, No 10, Oct 1954, Lib. of Congress

KATALINIC, Aleksandar

Development of pharmaceutical service in the National Liberation War of Yugoslavia. Voj san pregl 11 no.1/2: Ja-F '54. (EEAL 3:7)
(PHARMACY
*Yugosl., develop. during partisan war)

KATALINIC, H.

"Vaccination against F. & M. disease in Yugo."

Bull. Aff. Int. Epiz. 39, 175-179

KATALINIC, Hrvoje

"The Combat Against the Foot & Mouth Disease in Yugo."

XV Internat'l Vet. Congrss, Stockholm, 1953

KATALINIC, Hrvoje (Dr.) (51)

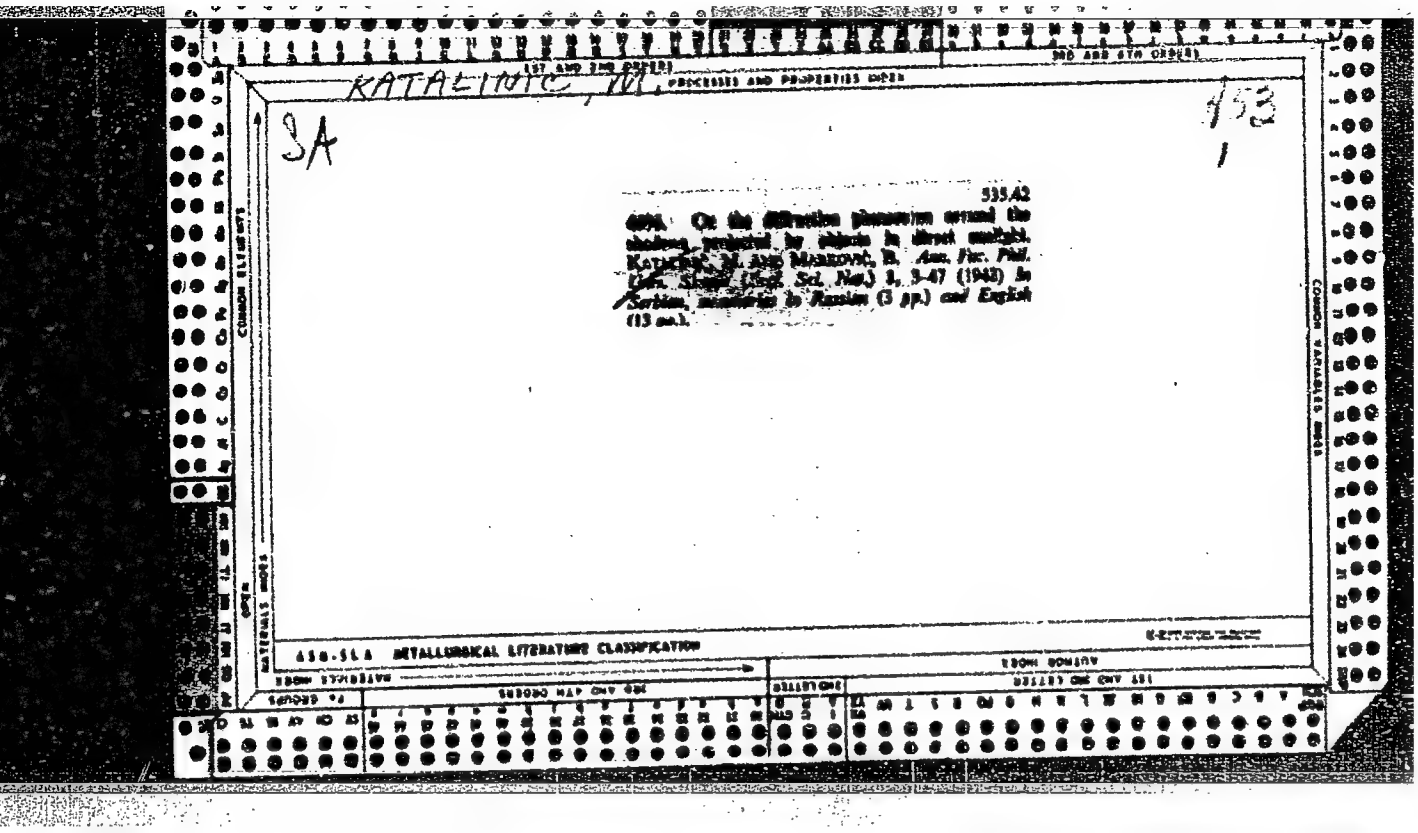
"About the Factors Influencing the Quality of Hyperimmune Sera in general, & the Pig Erysipelas Serum in Particular." Director of the Vet. Lab., Bitolj'. Dr. Hrvoje Katalinic - chief of the sera dept., Serum Inst. at Kalinovica, near Zagreb.

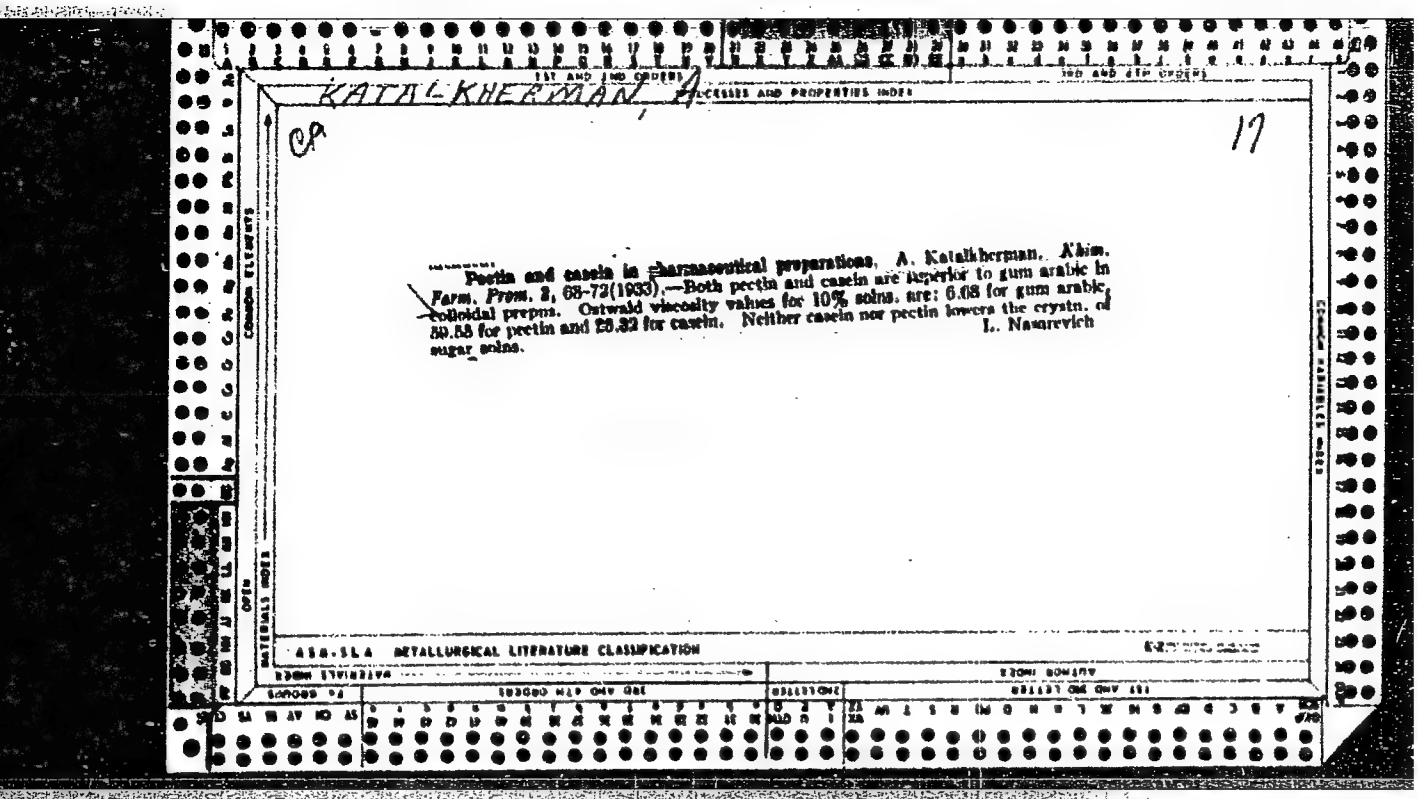
Vet: 1 : 39-48, 1954

KOCANOVSKIJ [Kochanovskiy], kand.tehn. nauka; FEDER, inzenjer; KATLER, S.M., kand.tehn.nauka; KATALINIC-UDOVCIC, Palma, prof. (Zagreb)

Welding with electric arc which is rotating in magnetic field. Zavarivanje 4 no.7:138-142 S '61.

1. Visoka tehnicka skola u Zagrebu, Zagreb (for Katalinic-Udovcic).



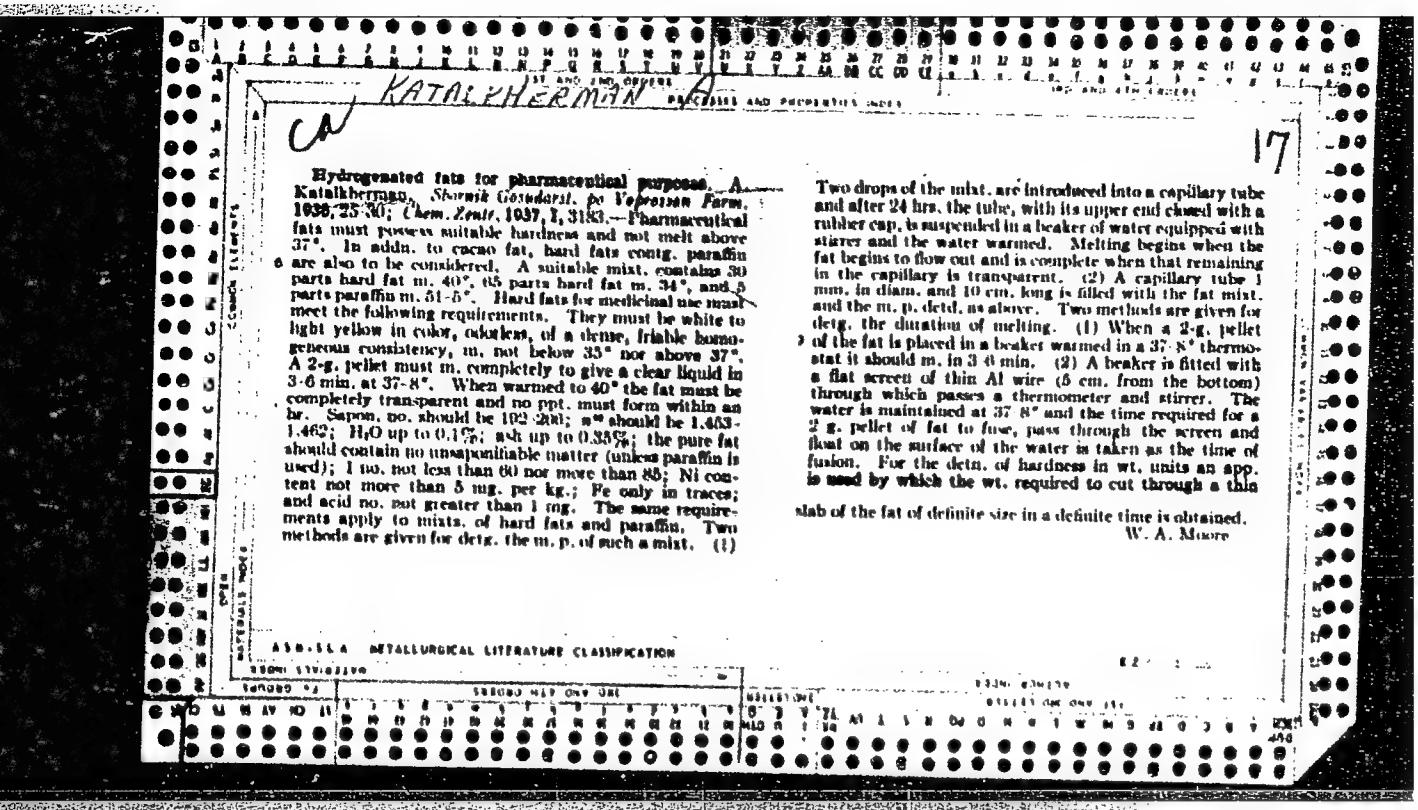


KATALKHERMAN, A

17

Pectin and casein in pharmaceutical preparations. A. Katalkherman. *Khim. Farm. Prom.* 2, 68-72(1933).—Both pectin and casein are superior to gum arabic in colloidal preps. Ostwald viscosity values for 10% solns. are: 6.08 for gum arabic, 59.55 for pectin and 25.32 for casein. Neither casein nor pectin lowers the crystn. of sugar solns. L. Nasarevich

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



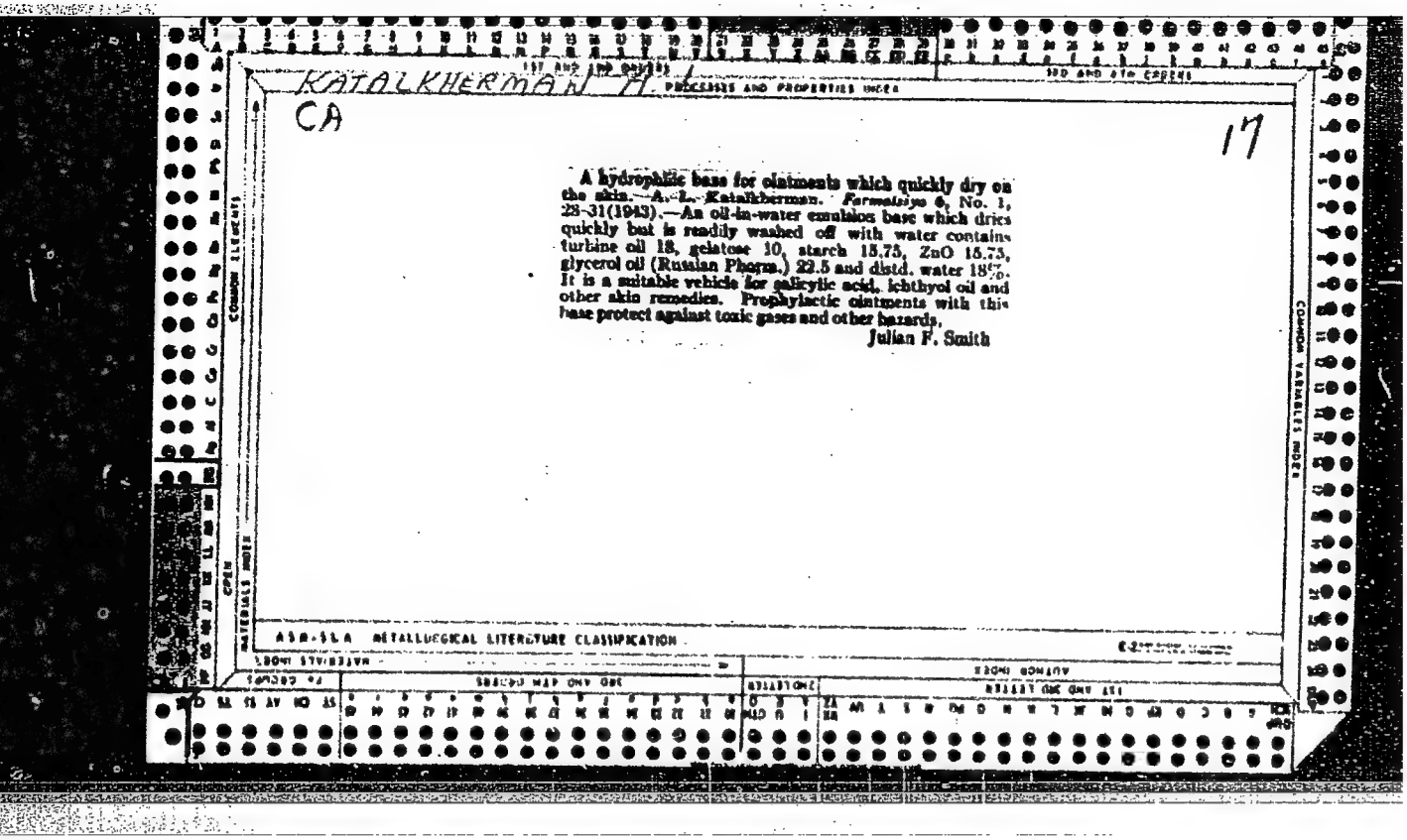
KATALKHERMAN A

17

Hydrogenated fats for pharmaceutical purposes. A. Katalkherman. *Sbornik Gosudarst. po Vyprosam Farm.* 1936, 25-30; *Chem. Zentr.*, 1937, I, 3183.—Pharmaceutical fats must possess suitable hardness and not melt above 37°. In addn. to cacao fat, hard fats contg. paraffin are also to be considered. A suitable mixt. contains 30 parts hard fat m. 40°, 65 parts hard fat m. 34°, and 5 parts paraffin m. 51-5°. Hard fats for medicinal use must meet the following requirements. They must be white to light yellow in color, odorless, of a dense, friable homogeneous consistency, m. not below 35° nor above 37°. A 2-g. pellet must m. completely to give a clear liquid in 3-6 min. at 37-8°. When warmed to 40° the fat must be completely transparent and no ppt. must form within an hr. Sapon. no. should be 192-208; n^{40} should be 1.453-1.462; H_2O up to 0.1%; ash up to 0.35%; the pure fat should contain no unsaponifiable matter (unless paraffin is used); I no. not less than 60 nor more than 85; Ni content not more than 5 mg. per kg.; Fe only in traces; and acid no. not greater than 1 mg. The same requirements apply to mixts. of hard fats and paraffin. Two methods are given for detg. the m. p. of such a mixt. (1) Two drops of the mixt. are introduced into a capillary tube and after 24 hrs. the tube, with its upper end closed with a rubber cap, is suspended in a beaker of water equipped with stirrer and the water warmed. Melting begins when the fat begins to flow out and is complete when that remaining in the capillary is transparent. (2) A capillary tube 1 mm. in diam. and 10 cm. long is filled with the fat mixt. and the m. p. detd. as above. Two methods are given for detg. the duration of melting. (1) When a 2-g. pellet of the fat is placed in a beaker warmed in a 37-8° thermostat it should m. in 3-6 min. (2) A beaker is fitted with a flat screen of thin Al wire (5 cm. from the bottom) through which passes a thermometer and stirrer. The water is maintained at 37-8° and the time required for a 2 g. pellet of fat to fuse, pass through the screen and float on the surface of the water is taken as the time of fusion. For the detn. of hardness in wt. units an app. is used by which the wt. required to cut through a thin slab of the fat of definite size in a definite time is obtained.

W. A. Moore

A38-11A METALLURGICAL LITERATURE CLASSIFICATION



KATALKHERMAN A.

CA

17

A hydrophilic base for ointments which quickly dry on the skin. A. L. Katalkherman. *Farmatsiya* 6, No. 1, 28-31(1943).—An oil-in-water emulsion base which dries quickly but is readily washed off with water contains turbine oil 18, gelatose 10, starch 15.75, ZnO 15.75, glycerol oil (Russian Pharm.) 22.5 and distd. water 18%. It is a suitable vehicle for salicylic acid, ichthyol oil and other skin remedies. Prophylactic ointments with this base protect against toxic gases and other hazards.

Julian F. Smith

VOLITOVA, N.I., KATALKHERMAN, A.L., kand.farmatsevticheskikh nauk,
SHTERN, M.R., provizor.

"Technology of drug forms" by P.E. Rozentsveig. Apt.delo 7
no.3:87-92 My-Je '58 (MIRA 11:7)
(PHARMACY)

KATALKIN, P.

Their instruction obscures facts. Fin. SSSR 23 no.3:81-82 Mr '62. (MIRA 15:3)
(Construction industry--Accounting)

KATAL'NIKOV, I. (g.Leningrad)

Collection of problems on planning ("Collection of problems on planning managerial operations in commerce" by V.V.Lobovikov. Reviewed by I.Katal'nikov). Sov.torg. 33 no.6:64-65 Je '60. (MIRA 13:7)

(Commerce--Problems, exercises, etc.)
(Lobovikov, V.V.)

KATAL'NIKOV, IGNATIY FEDOROVICH-KATAL'NIKOV, I. F.

N/5
750.012
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STATISTIKA SOVETSKOY TORGOVLI [STATISTICS OF SOVIET TRADE] MOSKVA, GOSTORGIZDAT, 1957.
138 P. TABLES.

KATAL'NIKOV, Ignatiy Fedorovich; KIRAKOZOVA, N.Sh., red.; LYUDSKOV, B.P., red.; MEDRISH, D.M., tekhn. red.

[Statistics of Soviet commerce] Statistika sovetskoi torgovli. Moskva, Gostorgizdat, 1962. 198 p. (MIRA 15:6)
(Russia—Commerce)

ANDREYEV, B.M.; BORESKOV, G.K.; KATAL'NIKOV, S.G.

Two-temperature method of separation of ions in a fixed ion-exchanger bed. Khim.prom. no.6:389-393 Je '61. (MIRA 14:6)
(Ion exchange)

S/089/61/011/003/006/013
B102/B138

AUTHORS: Katal'nikov, S. G., Andreyev, B. M.

TITLE: Separation factor of lithium isotopes in vacuum distillation

PERIODICAL: Atomnaya energiya, v. 11, no. 3, 1961, 240-244

TEXT: The lithium separation factors were determined by vacuum distillation using the Rayleigh formula. Distillation took place in an electrically heated, evacuated stainless steel still. Temperature was measured by Chromel-Alumel thermocouples and regulated with an accuracy of ±5°C. Pressure was not measured in the still. The absolute isotope composition was measured with an accuracy of ±0.03-0.04 %. Three sets of measurements were made: at 543, 469, and 406°C (with corresponding lithium-saturated vapor pressures: 10^{-4}, 10^{-3}, and 10^{-2} mm Hg). A comparison of the mean free paths λ and the distances d between the evaporation surfaces (cf. Table) showed that in all cases distillation took place in the molecular to equilibrium transformation range. For this transitional region the separation factor can be determined by the

Card 1/3

Separation factor of lithium...

following formula:

$$\alpha_{trans} = \alpha_p \left[(\sqrt{M_2/M_1} - 1) \frac{2e^{-K} - e^{-2K}}{F+(1-F)(2e^{-K} - e^{-2K})} + 1 \right]$$

M_1 and M_2 are the masses of the isotopes to be separated, e^{-K} is the proportion of molecules reaching the condenser without collision, $(e^{-K} - e^{-2K})$ is the proportion of molecules reaching the condenser after the first collision, F is the ratio of the condensation surface to the total evaporation and condensation surface, and $\alpha_p = p_1^0/p_2^0$ is the ratio between the saturated vapor pressures of the components to be separated. The formula shows that the separation factor is also dependent upon the mutual position and magnitude of the evaporation and condensation surfaces. In case of $K \leqslant 3$, the measured values agree well with the curve drawn on the basis of the above equation. It had been assumed for this case that $K = d/\lambda$. F was found to be almost 0.2. These results agree quite well with those from Refs. 6 and 9 (see below). G. K. Boreskov is thanked for interest and assistance. There are 3 figures, 1 table, and 13 references: 3 Soviet and 10 non-Soviet. The three references to English-language publications read

Card 2/3

as follows: Ref. 4: K. Kelley. US Bur. Mines Bulletin, 383 (1935); Ref.6: G. Burrows. Trans. Inst. Chem. Engrs., 32, 23 (1954); Ref. 9: Trauger et al. Proceedings of the International Symposium on Isotope Separation. North Holland Publishing Co., Amsterdam, 1957, p. 350.

SUBMITTED: January 30, 1961

Legend to the table: (1) Evaporation temperature; (2) residual gas pressure, mm Hg; (3) weighed lithium portion, grams, (4) Li residue after evaporation, grams; (5) evaporation rate, g/hr (evaporation area: 177 cm^2); (6) Li^6 content in the residue, % (standard: 7.39 % of Li^6); (7) separation factor; (8) d; (9) λ.

Температура испарения, °С (4)	Давление остаточных газов, мм рт. ст. (2)	Загрузка лития, г (3)	Остаток лития после испарения, г (4)	Скорость испарения, г/ч* (5)	Содержание Li⁶ в остатке**, % (6)	Коэффициент разделения (7)	Расстояние между поверхностями испарения и конденсации (d), см (8)	Длина свободного пробега (λ), см (9)
543	$1 \cdot 10^{-3}$	148,2	9,5	7,7	6,92	1,026±0,002	6,5	1,60
543	$1 \cdot 10^{-3}$	134,6	14,4	15,0	6,96	1,028±0,002	6,5	1,60
543	$1 \cdot 10^{-3}$	110,6	0,68	10,0	6,41	1,033±0,002	6,5	1,60
469	$3 \cdot 10^{-3}$	51,2	0,85	1,27	6,51	1,033±0,002	7,5	2,48
469	$2 \cdot 10^{-3}$	47,2	0,44	1,56	6,17	1,042±0,002	7,5	3,14
406	$1 \cdot 10^{-3}$	22,4	3,94	0,308***	6,72	1,060±0,002	9,0	5,30

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21410
S/089/61/011/006/006/014
B102/B138

21.4200

AUTHORS: Katal'nikov, S. G., Revin, V. A., Andreyev, B. M., Minayev, V. A.

TITLE: Determination of the separation factor for lithium isotopes in ion exchange

PERIODICAL: Atomnaya energiya, v. 11, no. 6, 1961, 528 - 532

TEXT: Isotope separation factor α is determined in the exchange of LiOH and LiCl solutions of various concentrations with the cation-exchange resins СБС (SBS) and КУ-2 (KU-2), and with Dowex-50. The characteristic parameters of the ion exchangers were first determined, then α was found graphically from the difference in equilibrium concentrations. The greatest difference in equilibrium concentration occurs if the preparations are isotope-enriched up to 50%. In single-stage experiments, Li^6 in the hydroxide solution was enriched to 48.4%, which produced a concentration difference of about 0.25(α-1). Table 2 shows the results with 1N LiOH solution, Table 3 those with 1 and 5N LiCl (single-stage enrichment). The selective properties of the ion-exchange resins investigated are discussed in detail with respect to concentration in divinyl benzene

Card 1/03

Determination of the...

and distribution factor K_{Li}^{H}. Conclusions: (1) Isotope exchange between SBS, KU-2 and Dowex-50 on the one side, and LiOH and LiCl solutions on the other, produced an accumulation of Li^6 in the cation exchanger and of Li^7 in the solution. α depends on the type of exchanger. (2) Within the limits of error α was the same for Li ion exchange in LiCl and LiOH solutions. In 1-5N LiCl solutions, α does not depend on concentration. (3) The distribution constants for Li^+-H^+ systems and α are interrelated. The cation exchanger with the least affinity to lithium has the greatest α. A similar K_{Li}^{H}/α dependence was found for cation exchangers for which the distribution coefficient depends on the molar fraction of Li in the exchanger (Dowex-50). For SBS, $\alpha = f(\log K_{Li}^{H})$. The authors thank Professor G. K. Boreskiy for his interest. G. M. Panchenkov is mentioned (G. M. Panchenkov et al., Atomnaya energiya, t. 7, vyp. 6, 556, 1959). There are 2 figures, 3 tables, and 13 references: 4 Soviet and 9 non-Soviet. The four most recent references to English-language publications read as follows: F. Menes, E. Saito, E. Roth. Proceedings of the International Symposium on Isotope Separation, p. 227, North-Holland Publishing

Card 2/ 3

Determination of the...

Co., Amsterdam, 1958; D. Lee, G. Begun. J. Amer. Chem. Soc. 81, No. 10, 2332 (1959); R. Betts, W. Harris., M. Stevenson. Canad. J. Chem. 34, No. 1, 65 (1956); D. Lee, J. Phys. Chem., 64, 187 (1960).

SUBMITTED: January 30, 1961

Legend to Table 2: (1) Cation exchanger; (2) No. of experiment; (3) α_{mean}; (4) temperature.

Table 3. Li isotope exchange between SBS (5) and LiCl solution.

Legend: (1) Number of experiment; (2) Li concentration observed, g-equiv./liter; (3) LiCl equilibrium concentration, g-equiv./liter; (4) fraction of Li in the cationite : RLi/(RLi + RH).

Card 3/3

KATAL'NIKOV, S.G.; REVIN, V.A.; ANDREYEV, B.M.; PROKOPETS, V.Ye.

Determination of height, equivalent to the theoretical plate in countercurrent ion exchange. Zhur. prikl. khim. 34 no. 12:2669-2674 D '61. (MIRA 15:1)

1. Moskovskiy khimiko-tekhnologicheskiy institut imeni D.I. Mendeleyeva.

(Ion exchange)

S/076/61/035/006/004/013
B127/B203

AUTHORS: Boreskov, G. K. and Katal'nikov, S. G.

TITLE: Graphical method for determining the coefficient of isotope separation in stepwise compression of the mixture to be separated

PERIODICAL: Zhurnal fizicheskoy khimii, v. 35, no. 6, 1961, 1240 - 1245

TEXT: The separation coefficient α of Rayleigh's formula was graphically determined. The individual process of separation is described by the equilibrium formula $\alpha = \frac{y(1-x)}{y_0(1-y)}$ (5) and the material balance formula $y_0 = \theta x + (1 - \theta)y$ (6). 1, θ and $(1 - \theta)$ are the numbers of moles of the substance to be separated in the initial, exhausted, and concentrated flow, respectively. $\frac{1}{1-\theta} = Z$ is the reduction of the flow of substance during separation. y_0, x, y are the molar parts of the isotope to be concentrated
Card 1/6

in the respective flows. The joint solution of the balance equation and the equilibrium equation determines the concentrations x_i and y_i in the exhausted and concentrated flow of the individual steps of separation. For the graphical determination, the straight line corresponding to Eq. (5), as well as Eq. (6) transformed with Z = ..., are plotted in a coordinate system. The tangent of the angle of inclination of this straight line indicates the reduction of flow of the given step. The intersection of the straight line $y_i = (1 - Z_i)x_i + Z_i y_{i-1}$ with the diagonal y = x indicates the concentration of the respective isotope in the respective step. The equilibrium curve and the diagonal y = x were plotted in the coordinates (y isotopic concentration in the concentrated part plotted on the ordinate, x concentration of the same isotope in the exhausted part plotted on the abscissa). From the point of the diagonal where $y = y_o$, a straight line with the inclination $(1 - Z_1)$ is drawn to the x-axis. The intersection with the equilibrium curve indicates the concentration of the isotope in the first step of separation. From this intersection, a parallel is drawn to the abscissa as far as the intersection with the diagonal. A straight line,

Graphical method for determining...

tangent $(1 - Z_2)$, is passed through the new intersection as far as the intersection with the equilibrium curve, Figs. 1 and 2 show this on the example of isotopic exchange between BF_3 and the BF_3-anisole complex. It is shown that the graphical determination permits a calculation of the loss of partially concentrated products. The amount of loss must be entered in the corresponding quantity Z_i. For determining the separation coefficient, the method is first conducted with the value α determined by Rayleigh's formula. This hypothetical value α is then plotted on the abscissa, and the end concentration y_n, graphically predetermined for this value, on the ordinate. The intersection of the ordinate y_n with the curve obtained determines the required value α. The optimum distribution of substance reduction over the individual steps is calculated. In small intervals, the equilibrium curve can be substituted by the straight line $y = ax + b$ (10). The value x calculated from Eq. (10) and (6) gives

$$y_1 = Z_1 y_0 - (Z_1 - 1)\frac{y_1 - b}{a} \quad (11)$$

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The same is made with the second step. Thus,

$$y_2 = \frac{Za^2y_0 + Zab + Zb + b(a-1) - b(Z_3 + Z/Z_3)}{Z + (Z_3 + Z/Z_3)(a-1) + (a-1)^2}. \qquad (14)$$

This equation is differentiated; it yields $Z_2^2 = Z$, and confirms that $Z_1 = Z_2$.

The authors refer to a paper by G. M. Panchenkov et al. (Zh. fiz. khimii, 31, 1951, 1957), as well as by Ye. M. Kuznetsova, A. V. Makarov, G. M. Panchenkov (Zh. fiz. khimii, 32, 2641, 1958). There are 4 figures and 9 references: 3 Soviet-bloc and 6 non-Soviet-bloc. The three most important references to English-language publications read as follows: T. Y. Taylor, H. C. Urey, J. Chem. Phys., 6, 429, 1939, A. A. Palko et al., J. Chem. Phys. 28, 211, 1958; ibid., 29, 1187, 1959.

ASSOCIATION: Moskovskiy khimiko-tekhnologicheskiy institut im. D. I. Mendeleyeva (Moscow Institut of Chemical Technology imeni D. I. Mendeleyev)

SUBMITTED: September 9, 1959.

KATAL'NIKOV, S.G.; PROKOPETS, V.Ye.

Effect of temperature on the ion exchange equilibrium of lithium and ammonium. Izv.vys.ucheb.zav; khim.i khim.tekh. 4 no.5:772-774 '61. (MIRA 14:11)

1. Moskovskiy khimiko-tekhnologicheskiy institut imeni Mendeleyeva, kafedra tekhnologii razdeleniya i primeneniya izotopov.
(Lithium) (Ammonium compounds)
(Ion exchange)

KATAL'NIKOV, S.G.; REVIN, V.A.; ANDREYEV, B.M.; MINAYEV, V.A.

Determining the separation coefficients for lithium isotopes in ion exchange. Atom. energ. 11 no.6:528-532 D '61. (MIRA 14:11)
(Lithium--Isotopes) (Isotope separation) (Ion exchange)

SAPIR, A.D.; BIRYUKOV, N.D.; KATAL'NIKOV, S.G.; FROLOVA, Z.M.; REGINA, V.R.; SHUVAHOVA, N.V.; KRASHENINNIKOVA, Ye.P.; BLINOVA, R.V.

Exchange of experience. Zav.lab. 28 no.6:670-671 '62. (MIRA 15:5)

1. Chelyabinskiy metallurgicheskiy zavod (for Sapir). 2. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR (for Biryukov). 3. Moskovskiy khimiko-tekhnologicheskiy institut imeni Mendeleyeva (for Katal'nikov, Frolova).

(Chemistry, Analytical)

KATAL'NIKOV, S.G.; SHLYAPNIKOV, S.V.

Calculating the equilibrium constants of isotopic exchange between water and hydrogen sulfide. Zhur. fiz. khim. 36 no.4:853-855 Ap '62. (MIRA 15:6)

1. Moskovskiy khimiko-tekhnologicheskiy institut imeni D.I.Mendeleyeva.
(Hydrogen sulfide) (Chemical reactions)

$(C_4H_9)_2O \cdot BF_3$. To avoid spontaneous combustion, Grignard reagent is frozen in

analysis may be carried out in a standard mass spectrometer VG

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721110014-4"

4- $(CH_2)_5$ storage flask; 5- manometer for measuring

ANDRIYEV, P.M.; KATAL'NIKOV, S.G.

Technological design and calculation of the stage of a dual temperature cascade. Khim.prom. 42 no.4:28-31 Ap '65.

(MIRA 18:8)

KATAL'NIKOV, S.G.; GUN CHZHI-TSIN' [Kung Chih-ch'in]

Isotope equilibrium in the systems BF_3 - BF_4 complexes with ethyl acetate and ethyl propionate. Zhur. fiz. khim. 39 no.6: 1393-1398 Je '65. (MIRA 18:11)

1. Moskovskiy khimiko-tekhnologicheskiy institut imeni Mendeleyeva. Submitted Feb. 4, 1964.

L 41040-66 EWT(m)/EWP(j) JW/JWD/RM SOURCE CODE: UR/0089/66/020/004/0345/0346

ACC NR: AP6013732

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51
B

AUTHOR: Katal'nikov, S. G.; Paramonov, R. M.; Kapustin, I. A.

ORG: none

TITLE: Boron isotope separation using the $C_6H_5OC_5H_5 \cdot BF_3$-BF_3 system

SOURCE: Atomnaya energiya, v. 20, no. 4, 1966, 345-346

TOPIC TAGS: isotope separation, boron, boron compound

ABSTRACT: The authors determine the separation constant α by single isotopic equilibration, which comprised mixing for 6 hr a liquid phase in contact with the gaseous phase, and subsequent mass spectrometric analysis of the probe and the standard on an MV-2302 mass spectrometer. The results are shown in Table 1.

UDC: 621.039.32:621.039.322.3:546.27

Card 1/2

L 41040-66

ACC NR: AP6013732

Table 1. Boron isotope separation constant (with an average dispersion of 0.0015)

Temperature, °C	α aver
5	1.046
15	1.044
25	1.042
35	1.038

Using an experimental glass model, a study was made of the behavior of the $C_6H_5OC_2H_5 \cdot BF_3$ - BF_3 system during extended operation with thermal flow reversal at the ends of the column. The results show that the isotope exchange based on the phenetole complex, rather than on the chemical exchange distillation of the BF_3 dimethyl ether complex, reduces the production cost by a factor of 2.6, and reduces the volume of the column to one fifth. Orig. art. has: 1 table.

SUB CODE: 18/ SUBM DATE: 16Sep65/ ORIG REF: 002/ OTH REF: 000

Card 2/2

37924

S/181/62/004/005/008/055
B102/B138

24.7500

AUTHORS: Zhdanov, V. A., and Katal'nikov, V. V.

TITLE: Calculation of the mean square of thermal displacement of atoms in a CsCl-type lattice using Hauston's method

PERIODICAL: Fizika tverdogo tela, v. 4, no. 5, 1962, 1124-1127

TEXT: The mean square of displacement of atoms from their equilibrium position is calculated from the spectrum of normal vibrations, which is determined by Hauston's method. The results are compared with those obtained with a spectrum calculated according to Montroll (Phys. Rev., 115, 18, 24, 1959). The mean square amplitudes of thermal vibrations obtained from X-ray reflection intensities can be used to determine the binding forces in crystals, since there exists a relation between $\overline{u^2}$ and the binding energy. Here the interactions within the first and second coordination spheres are taken into account. First the interaction parameters are determined for a CsCl-type lattice by Hauston's and Montroll's methods.

Then $\overline{u^2}(T)$ is calculated using the relation

Card 1/3

Calculation of the mean square of ...

$$\overline{u^2}(T)=A\int\frac{1}{\omega}\left(\frac{1}{e^{\frac{\hbar\omega}{kT}}-1}+\frac{1}{2}\right)g(\omega)\,d\omega, \qquad (2),$$

where $A=\frac{1}{m}$, $g(\omega)$ is the frequency density distribution of the lattice vibrations

$$g(\omega)=\sum_s b_s\left(k^2\frac{dk}{d\omega}\right)_s, \qquad (3)$$

which holds according to Hauston (Ref. 2: Phys. Rev., 104; 42, 1956). Numerical calculations were carried out for three directions with

$$b_{(100)}=0.09803;\quad b_{(111)}=0.08823;\quad b_{(100)}=0.15685.$$

For the binding parameters $\gamma+\delta+\gamma\delta>0$ is valid. The numerical values for δ and γ were taken from Ref. 2, and $\overline{u^2}(T)$ was calculated for T=77°K and T=290°K at Θ = 150°K. $\Delta\overline{u^2}$ decreases exponentially with increasing

Card 2/3

ZHDANOV, V.A.; KATAL'NIKOV, V.V.

Calculating the heat capacity of a CsCl-type lattice by the Heuston method. Fiz. met. i metalloved. 16 no.1:148-149 Jl '63. (MIRA 16:9)

1. Sibirskiy fiziko-tekhnicheskiy nauchno-issledovatel'skiy institut.

(Cesium chloride—Thermal properties)

KATALUP, V.T.

Conference of the workers of the Ukrainian confectionery industry. Khar.prom. no.3:78-80 Jl-S '62. (MIRA 15:8)

1. Glavnyy inzh. L'vovskoy konditorskoy fabriki im. Kirova.
(Ukraine—Confectionery)

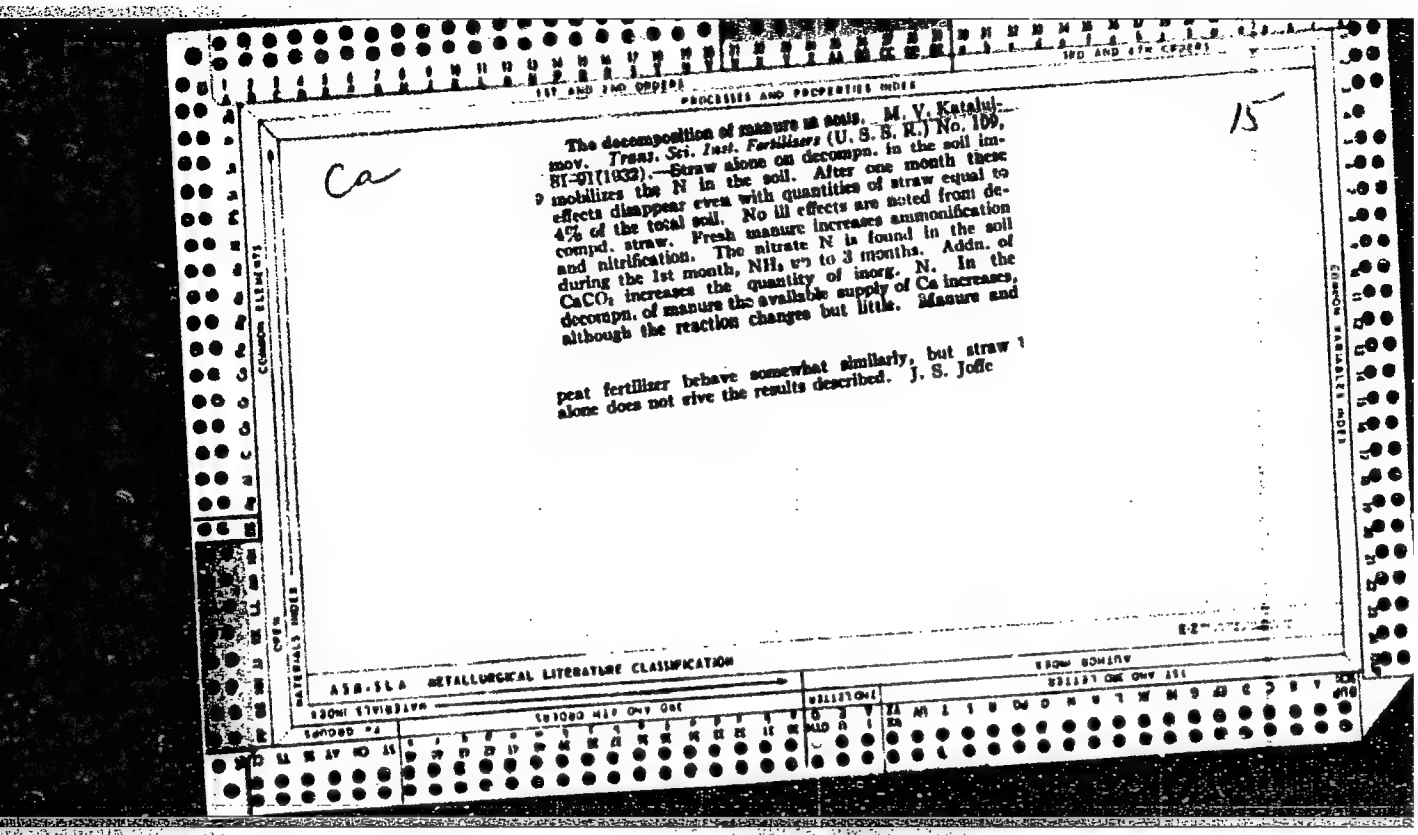
KATALUP, V.T.

New varieties of confectionery products. Kharch.prom. no.4:24-27 O-D '63. (MIRA 17:1)

KATALYMOV, L.L.

Experiments during the study of inheritance and variability.
Biol. v shkole no.1:29-31 Ja-F '63. (MIRA 16:6)

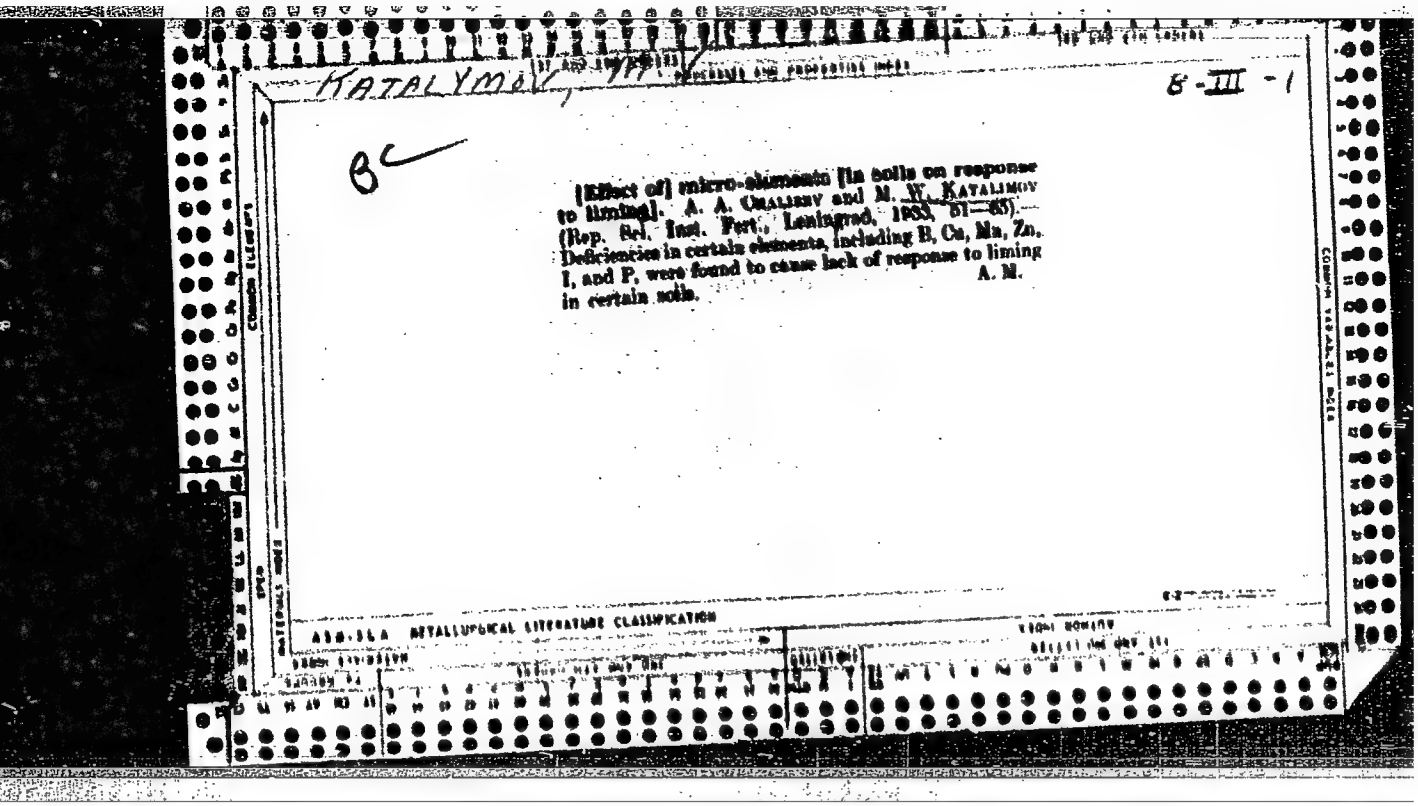
1. Ul'yanovskiy pedagogicheskiy institut.
(Microbiology--Experiments)
(Variation(Biology))



Ca

15

The decomposition of manure in soils. M. V. Katalymov. *Trans. Sci. Inst. Fertilizers* (U. S. S. R.) No. 109, 81–91(1932).—Straw alone on decompn. in the soil immobilizes the N in the soil. After one month these effects disappear even with quantities of straw equal to 4% of the total soil. No ill effects are noted from decompd. straw. Fresh manure increases ammonification and nitrification. The nitrate N is found in the soil during the 1st month, NH_3 up to 3 months. Addn. of $CaCO_3$ increases the quantity of inorg. N. In the decompn. of manure the available supply of Ca increases, although the reaction changes but little. Manure and peat fertilizer behave somewhat similarly, but straw alone does not give the results described. J. S. Joffe



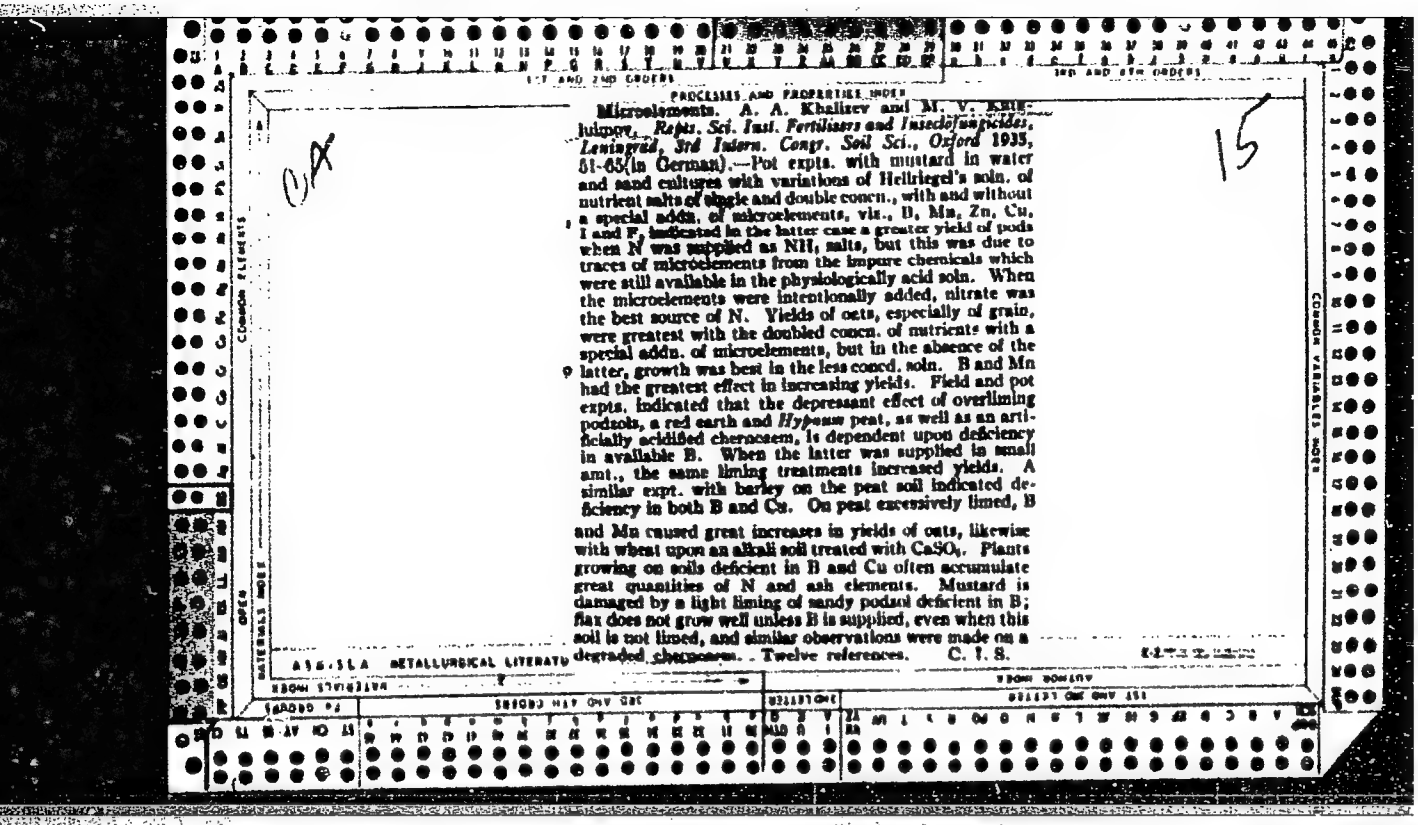
KATALYMOV, M.

8-III-1

8C

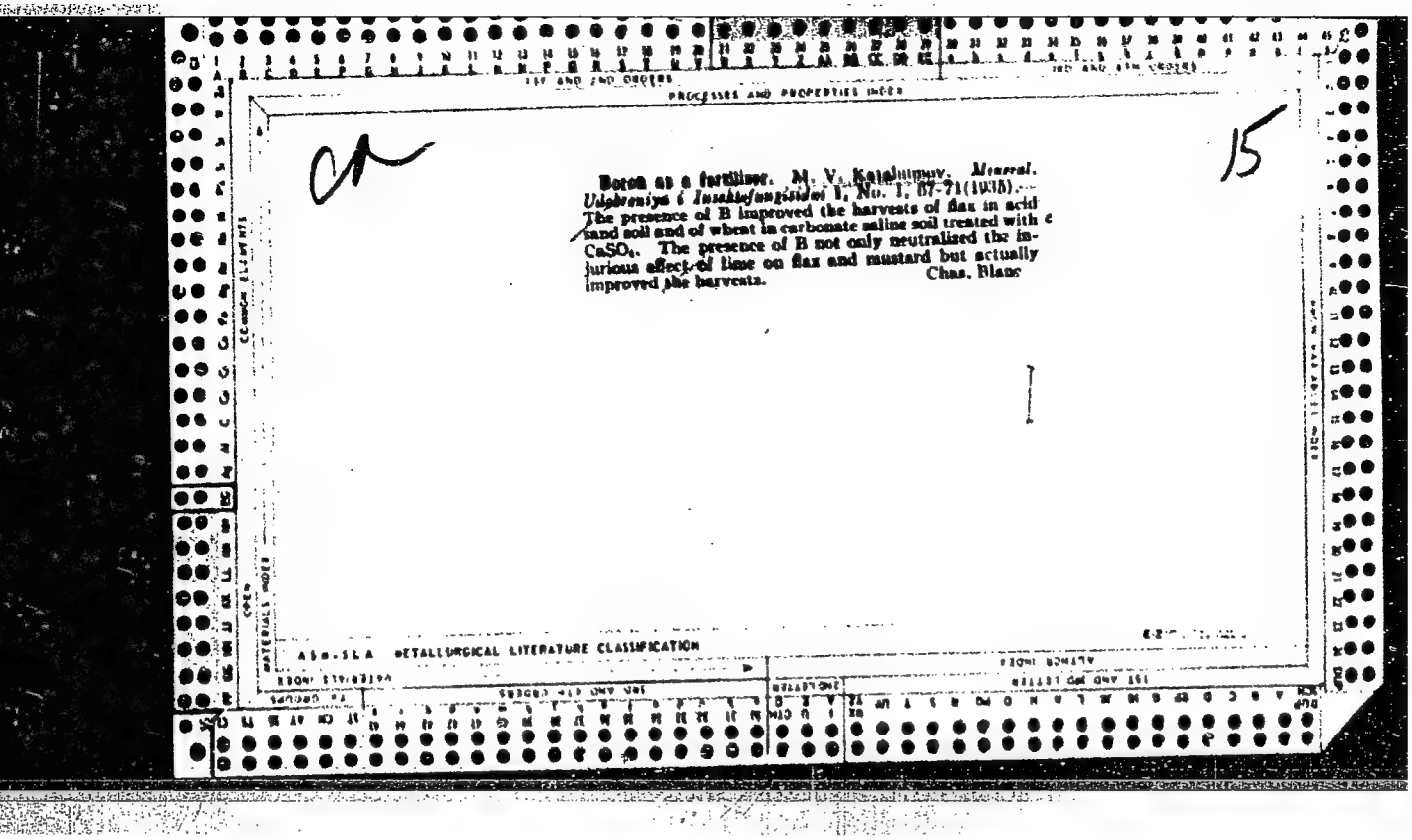
[Effect of] micro-elements [in soils on response to liming]. A. A. CHALIBOV and M. M. KATALIMOV (Rep. Sci. Inst. Fert., Leningrad, 1953, 51—65). Deficiencies in certain elements, including B, Cu, Mn, Zn, I, and P, were found to cause lack of response to liming in certain soils. A. M.

ASB-ILA METALLURGICAL LITERATURE CLASSIFICATION

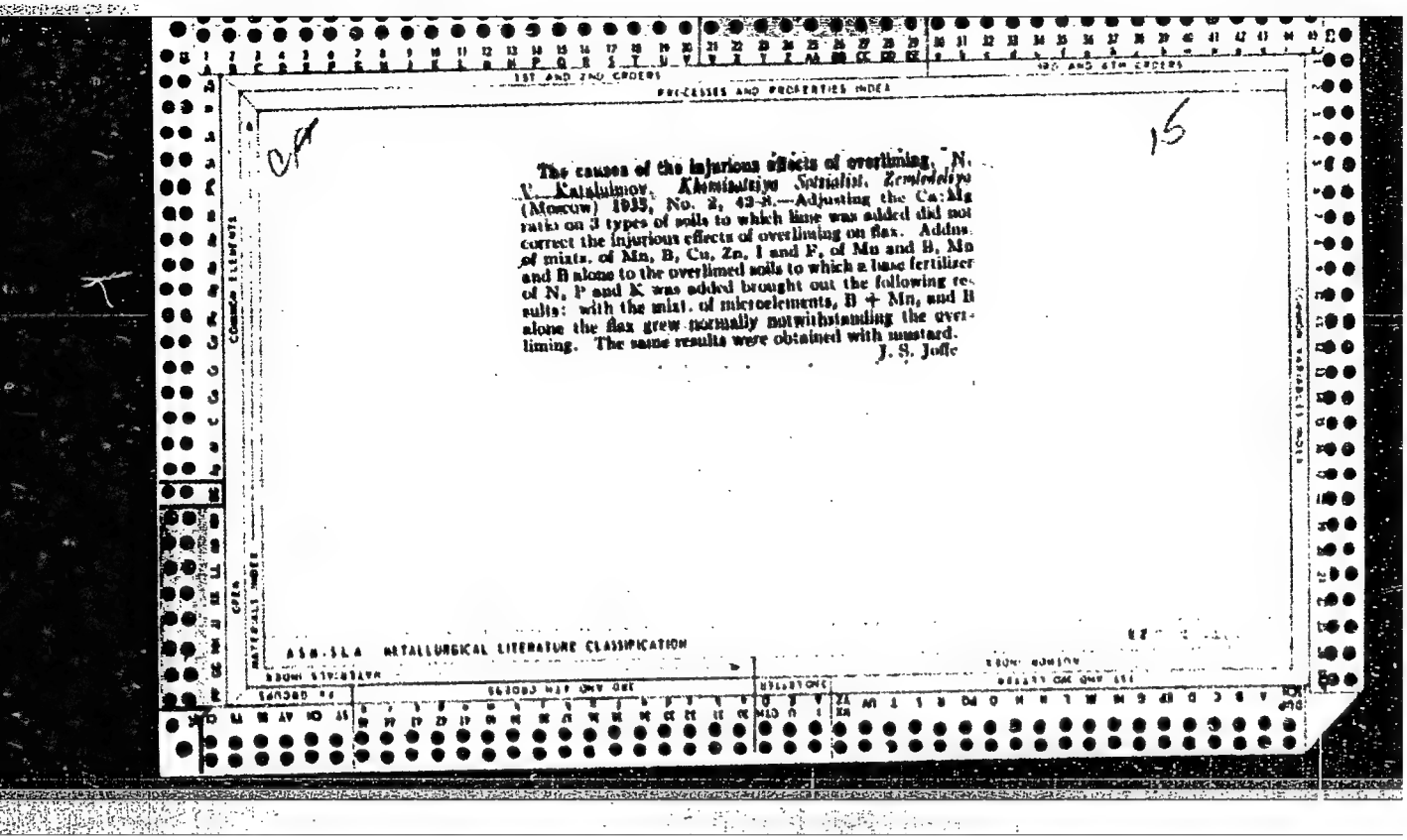


PROCESSES AND PROPERTIES INDEX

Microelements. A. A. Khalizev and M. V. Kaliujnyi, *Repts. Sci. Inst. Fertilisers and Insecticides, Leningrad, 3rd Intern. Congr. Soil Sci., Oxford* 1935, 51-65 (in German).—Pot expts. with mustard in water and sand cultures with variations of Hellriegel's soln. of nutrient salts of single and double concn., with and without a special addn. of microelements, viz., B, Mn, Zn, Cu, I and F, indicated in the latter case a greater yield of pods when N was supplied as NH_4 salts, but this was due to traces of microelements from the impure chemicals which were still available in the physiologically acid soln. When the microelements were intentionally added, nitrate was the best source of N. Yields of oats, especially of grain, were greatest with the doubled concn. of nutrients with a special addn. of microelements, but in the absence of the latter, growth was best in the less concd. soln. B and Mn had the greatest effect in increasing yields. Field and pot expts. indicated that the depressant effect of overliming podzols, a red earth and *Hypnum* peat, as well as an artificially acidified chernozem, is dependent upon deficiency in available B. When the latter was supplied in small amt., the same liming treatments increased yields. A similar expt. with barley on the peat soil indicated deficiency in both B and Cu. On peat excessively limed, B and Mn caused great increases in yields of oats, likewise with wheat upon an alkali soil treated with $CaSO_4$. Plants growing on soils deficient in B and Cu often accumulate great quantities of N and ash elements. Mustard is damaged by a light liming of sandy podzol deficient in B; flax does not grow well unless B is supplied, even when this soil is not limed, and similar observations were made on a degraded chernozem. Twelve references. C. T. S.

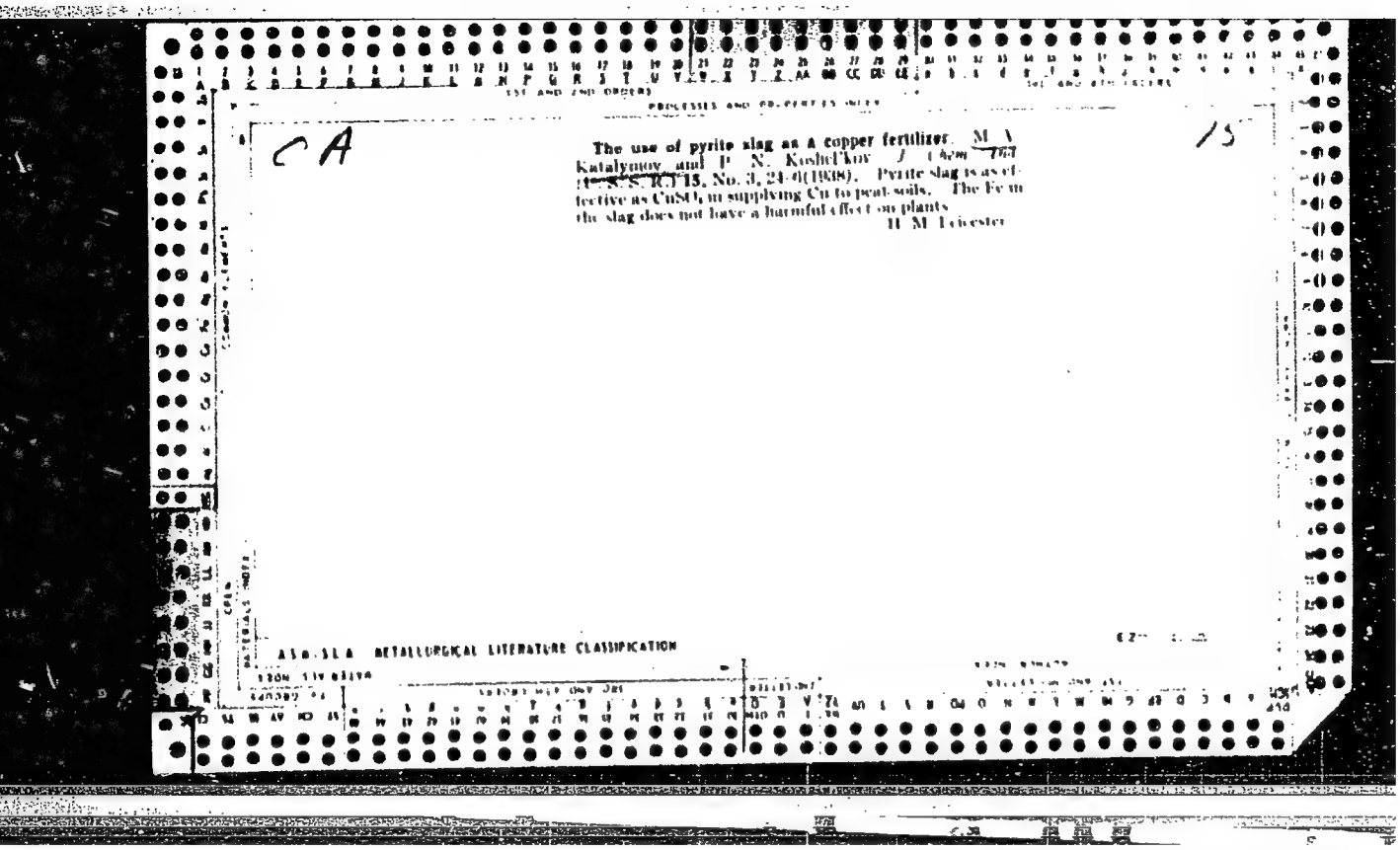


Boron as a fertilizer. M. V. Katalimov. *Mineral. Udobreniya i Insektofungisidy* 1, No. 1, 67-71(1938).—The presence of B improved the harvests of flax in acid sand soil and of wheat in carbonate saline soil treated with $CaSO_4$. The presence of B not only neutralized the injurious effect of lime on flax and mustard but actually improved the harvests.
Chas. Blanc



The causes of the injurious effects of overliming. N. V. Kalalunov. *Khimizatsiya Sotsialist. Zemledeliya* (Moscow) 1939, No. 2, 42-8.—Adjusting the Ca:Mg ratio on 3 types of soils to which lime was added did not correct the injurious effects of overliming on flax. Addns. of mixts. of Mn, B, Cu, Zn, I and F, of Mn and B, Mn and B alone to the overlimed soils to which a base fertilizer of N, P and K was added brought out the following results: with the mixt. of microelements, B + Mn, and B alone the flax grew normally notwithstanding the overliming. The same results were obtained with mustard.

J. S. Joffe

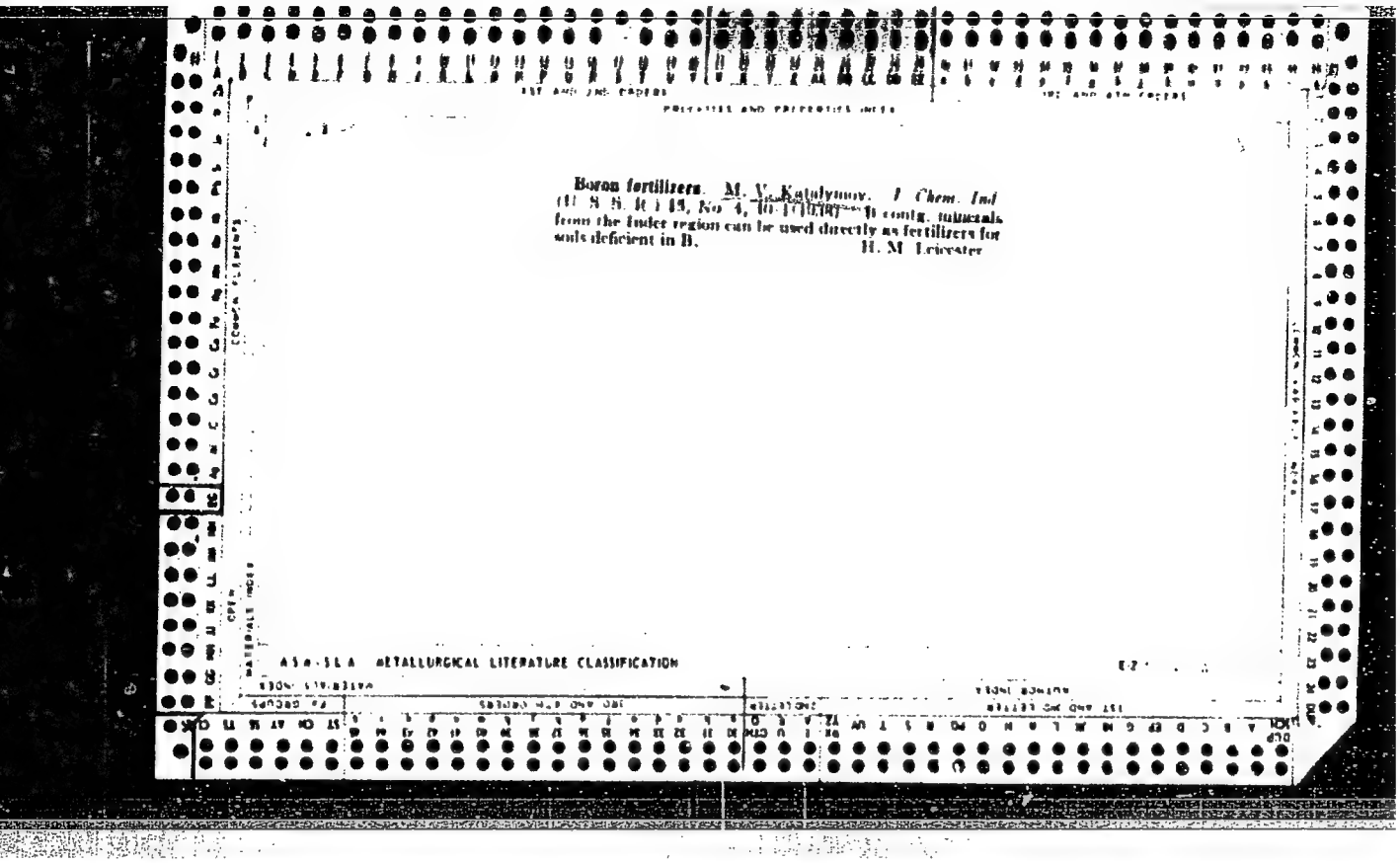


CA

15

The use of pyrite slag as a copper fertilizer. M. A. Katalymov and P. N. Koshel'kov. *J. Chem. Ind.* (U.S.S.R.) 15, No. 3, 24-6(1938). Pyrite slag is as effective as $CuSO_4$ in supplying Cu to peat-soils. The Fe in the slag does not have a harmful effect on plants.
H. M. Leicester

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



Boron fertilizers. M. V. Katalymov. *J. Chem. Ind* (U. S. S. R.) 15, No. 4, 40-1(1938). — B contg. minerals from the Indee region can be used directly as fertilizers for soils deficient in B.
H. M. Leicester

A S M - S L A METALLURGICAL LITERATURE CLASSIFICATION

KATALYMOV, M. B.

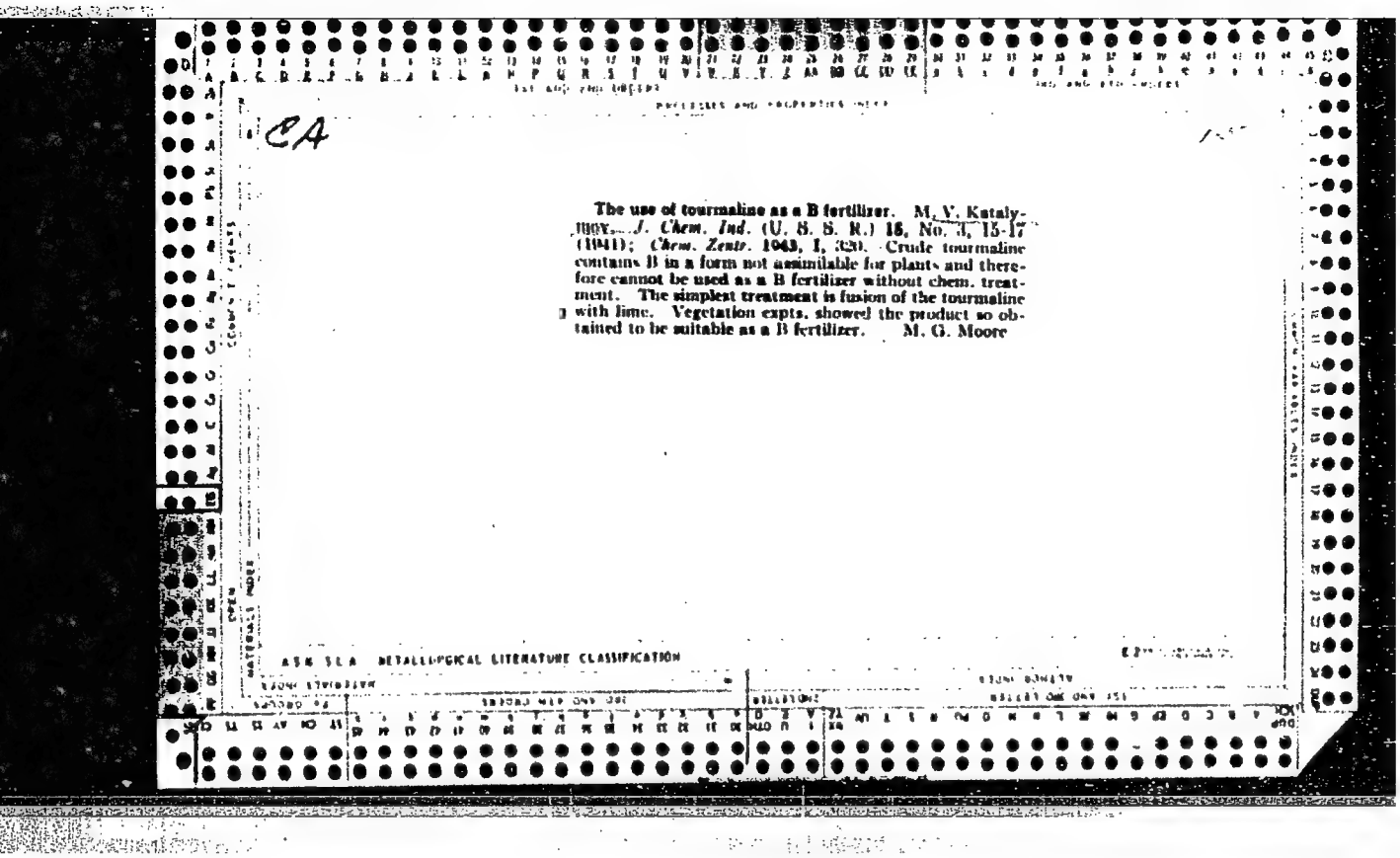
"Boric Acid from Domestic (Russian) Raw Materials," I. M. Kurman, L. E. Berlin, and M. B. Katalymov, Nauch Inst Udobr i Insektofung im Ya. V. Samoylov, pp 67-71 (1939), Khim Referat Zhur 1940, No 6, pp 97 (SEE: Inst. Insect/Fung. in Ya. V Samoylov)

SO: U-237/49, 8 April 1949

KATALYMOV, M. V.

"The Action of Boron on Chernozem Soils," S. M. Gurevich, and M. V. Katalymov, Chemisation Socialistic Agr, 1940, No 11-12, pp 89-91, Khim Referat Zhur IV, No 6 pp 61 (1941)
(SEE: Inst. Insect/Fungl in Ya. V. Samoylov)

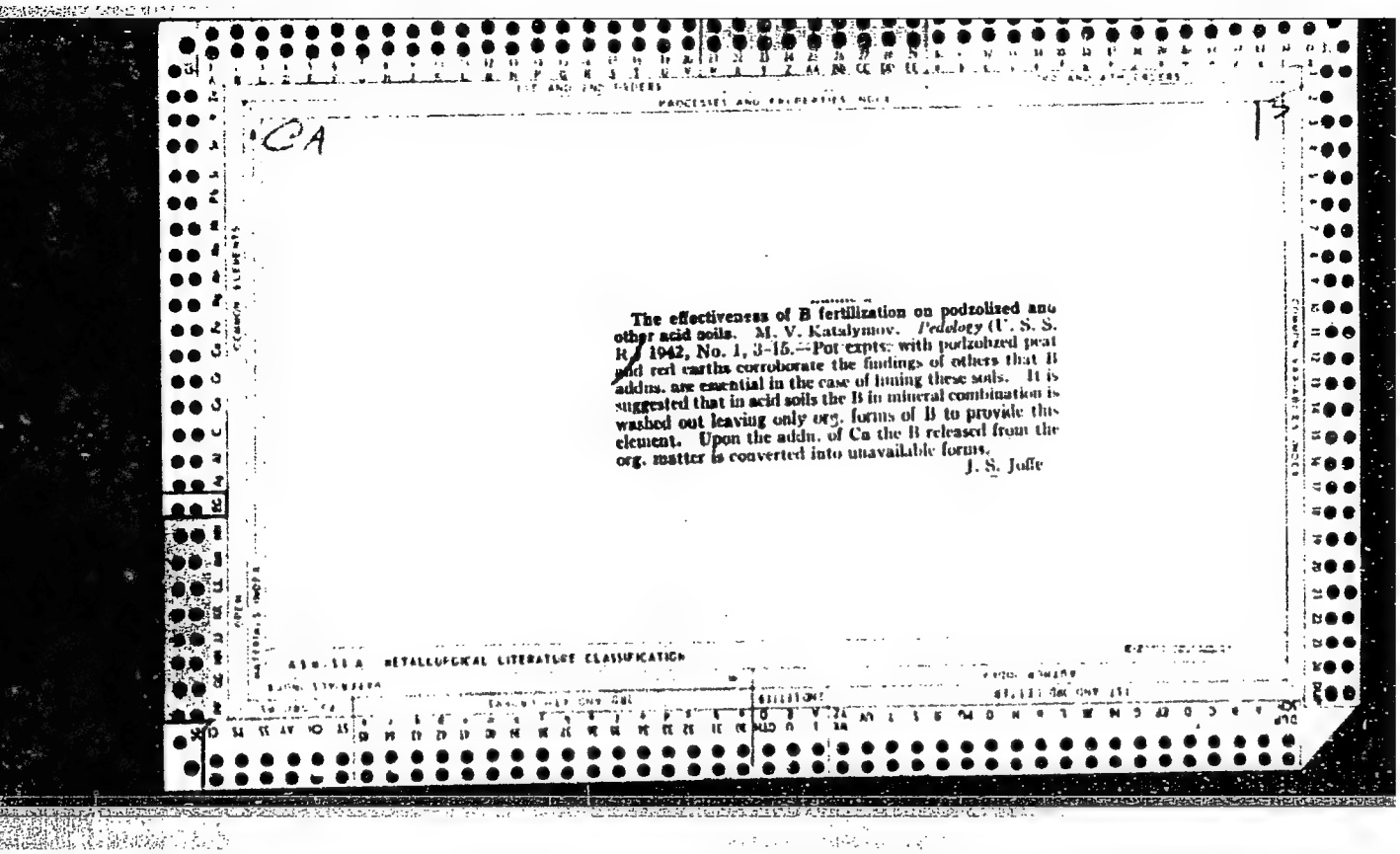
SO: U-237/49, 8 April 1949



CA

The use of tourmaline as a B fertilizer. M. V. Kataly-[illegible], *J. Chem. Ind.* (U. S. S. R.) **18**, No. 3, 15-17 (1941); *Chem. Zentr.* **1943**, I, 320. Crude tourmaline contains B in a form not assimilable for plants and therefore cannot be used as a B fertilizer without chem. treatment. The simplest treatment is fusion of the tourmaline with lime. Vegetation expts. showed the product so obtained to be suitable as a B fertilizer. M. G. Moore

ASM SLA METALLURGICAL LITERATURE CLASSIFICATION



CA

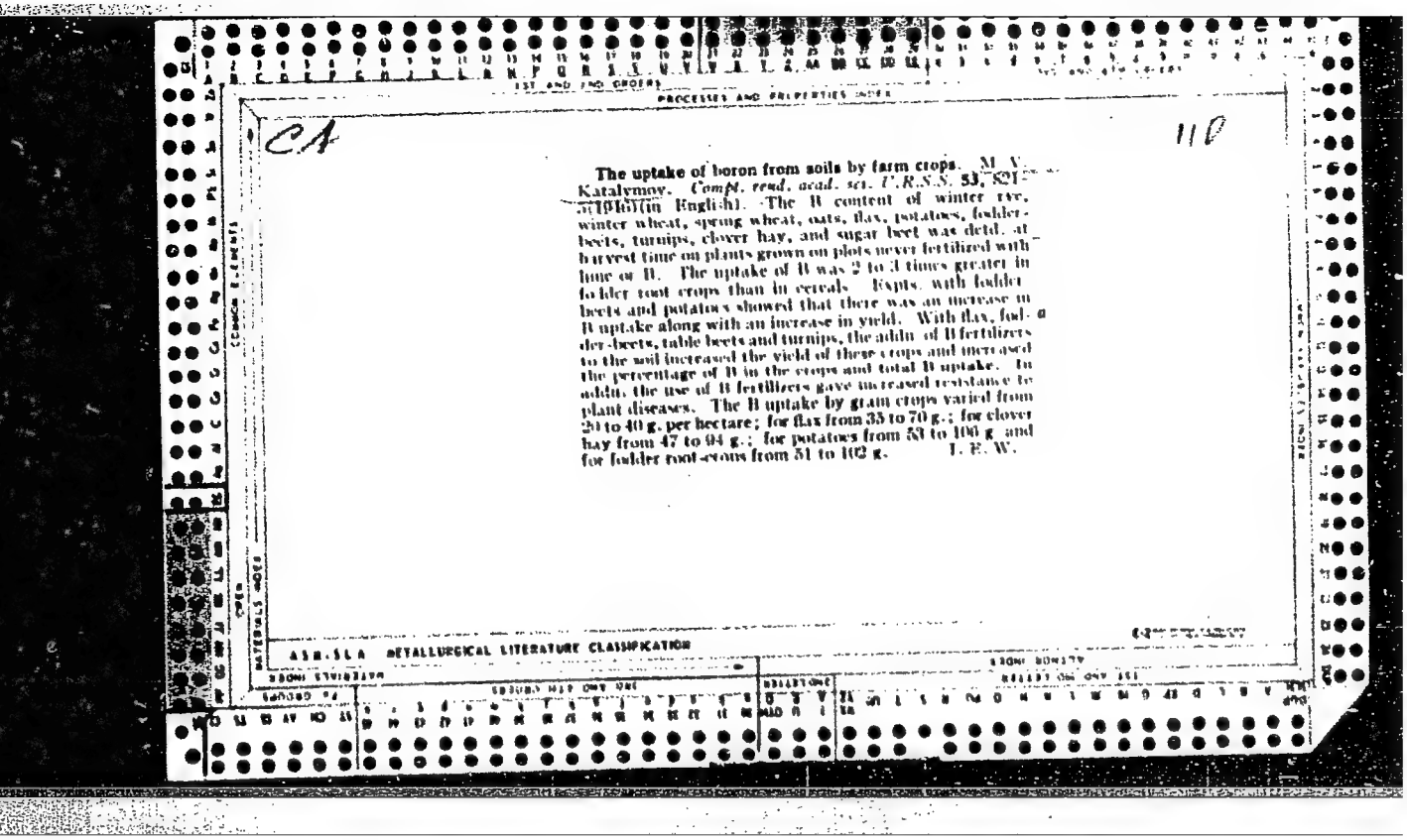
The effectiveness of B fertilization on podzolized and other acid soils. M. V. Katalymov. *Pedology* (U. S. S. R.) 1942, No. 1, 3-15.—Pot expts. with podzolized peat and rel. earths corroborate the findings of others that B addns. are essential in the case of liming these soils. It is suggested that in acid soils the B in mineral combination is washed out leaving only org. forms of B to provide this element. Upon the addn. of Ca the B released from the org. matter is converted into unavailable forms.

J. S. Joffe

KATALYMOV, M. V.

(See Kurman, I. M., and Gurevich, S. M.) "The Uptake of Boron form Soils by Farm Crops," M. V. Katalymov, Compt rend acad sci USSR, LIII, pp 821-5 (1945) (English) (SEE: Inst. Insect/Fung. in Ya. V. Samoylov)

SO: U-237/49, 8 April 1949

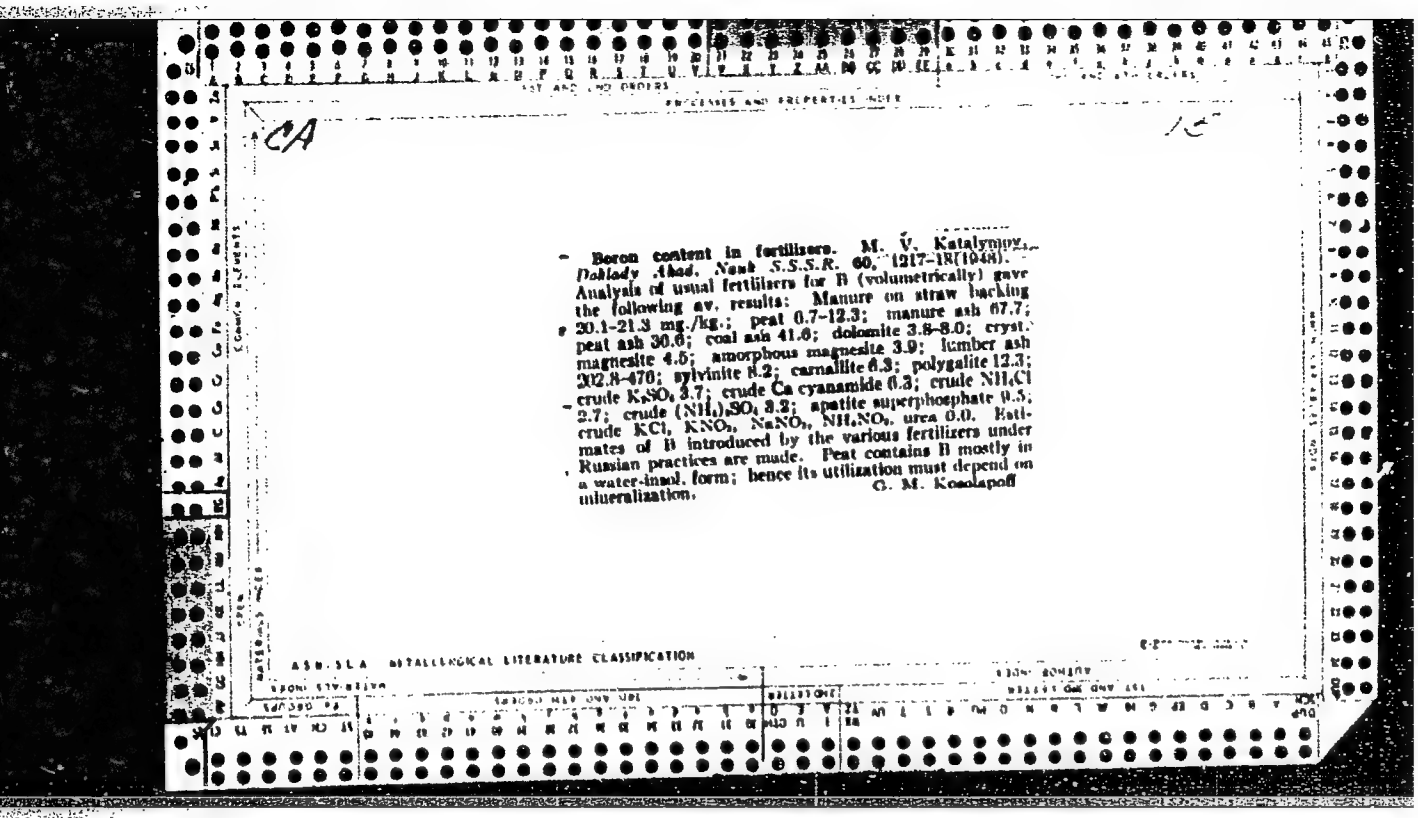


CA

110

The uptake of boron from soils by farm crops. M. V. Katalymov. *Compt. rend. acad. sci. U.R.S.S.* 53, 821-3(1946)(in English). The B content of winter rye, winter wheat, spring wheat, oats, flax, potatoes, fodder-beets, turnips, clover hay, and sugar beet was detd. at harvest time on plants grown on plots never fertilized with lime or B. The uptake of B was 2 to 3 times greater in fodder root crops than in cereals. Expts. with fodder beets and potatoes showed that there was an increase in B uptake along with an increase in yield. With flax, fodder-beets, table beets and turnips, the addn. of B fertilizers to the soil increased the yield of these crops and increased the percentage of B in the crops and total B uptake. In addn. the use of B fertilizers gave increased resistance to plant diseases. The B uptake by grain crops varied from 20 to 40 g. per hectare; for flax from 35 to 70 g.; for clover hay from 47 to 94 g.; for potatoes from 53 to 106 g. and for fodder root-crops from 51 to 102 g. I. E. W.

A38.51A METALLURGICAL LITERATURE CLASSIFICATION



CA

12

Boron content in fertilizers. M. V. Katalymov. *Doklady Akad. Nauk S.S.S.R.* 60, 1217–18(1948). Analysis of usual fertilizers for B (volumetrically) gave the following av. results: Manure on straw backing 20.1–21.3 mg./kg.; peat 0.7–12.3; manure ash 67.7; peat ash 30.6; coal ash 41.6; dolomite 3.8–8.0; cryst. magnesite 4.5; amorphous magnesite 3.9; lumber ash 202.8–470; sylvinite 8.2; carnallite 6.3; polygalite 12.3; crude K_2SO_4 2.7; crude Ca cyanamide 6.3; crude NH_4Cl 2.7; crude $(NH_4)_2SO_4$ 3.2; apatite superphosphate 9.5; crude KCl, KNO_3, $NaNO_3$, NH_4NO_3, urea 0.0. Estimates of B introduced by the various fertilizers under Russian practices are made. Peat contains B mostly in a water-insol. form; hence its utilization must depend on mineralization.

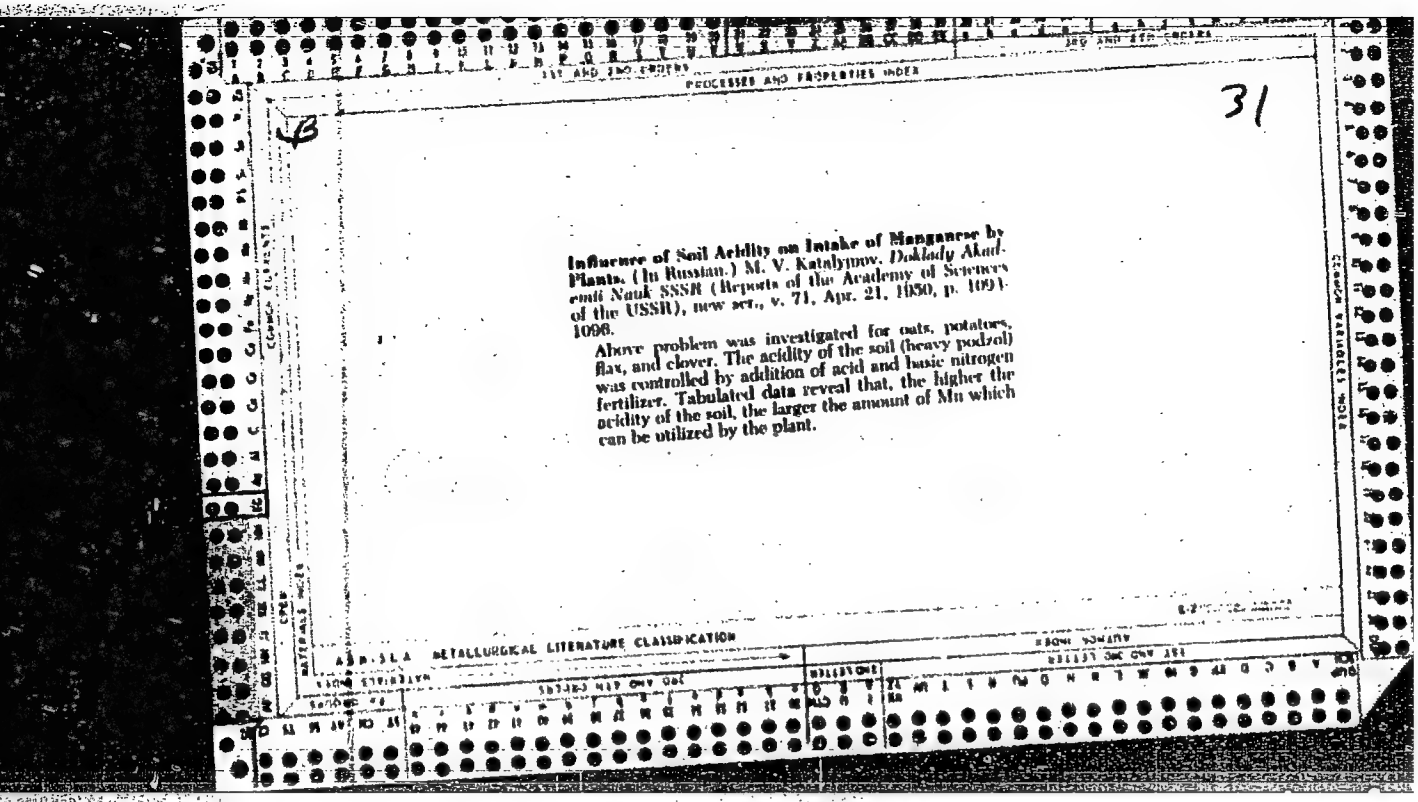
G. M. Kosolapoff

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

KATALYNOV, N. V.

25007 Katalynov, N. V. O Deystvii Bornykh Udobreniy V Zavisimosti Ot Tipa Pochv. Trudy Yubileynoy Sessii, Posvyashch. Stoletiyu So Dnya Rozhdeniya Dokuchayeva. M. - L., 1949, S. 310-13

SO: Letopis', No. 33, 1949



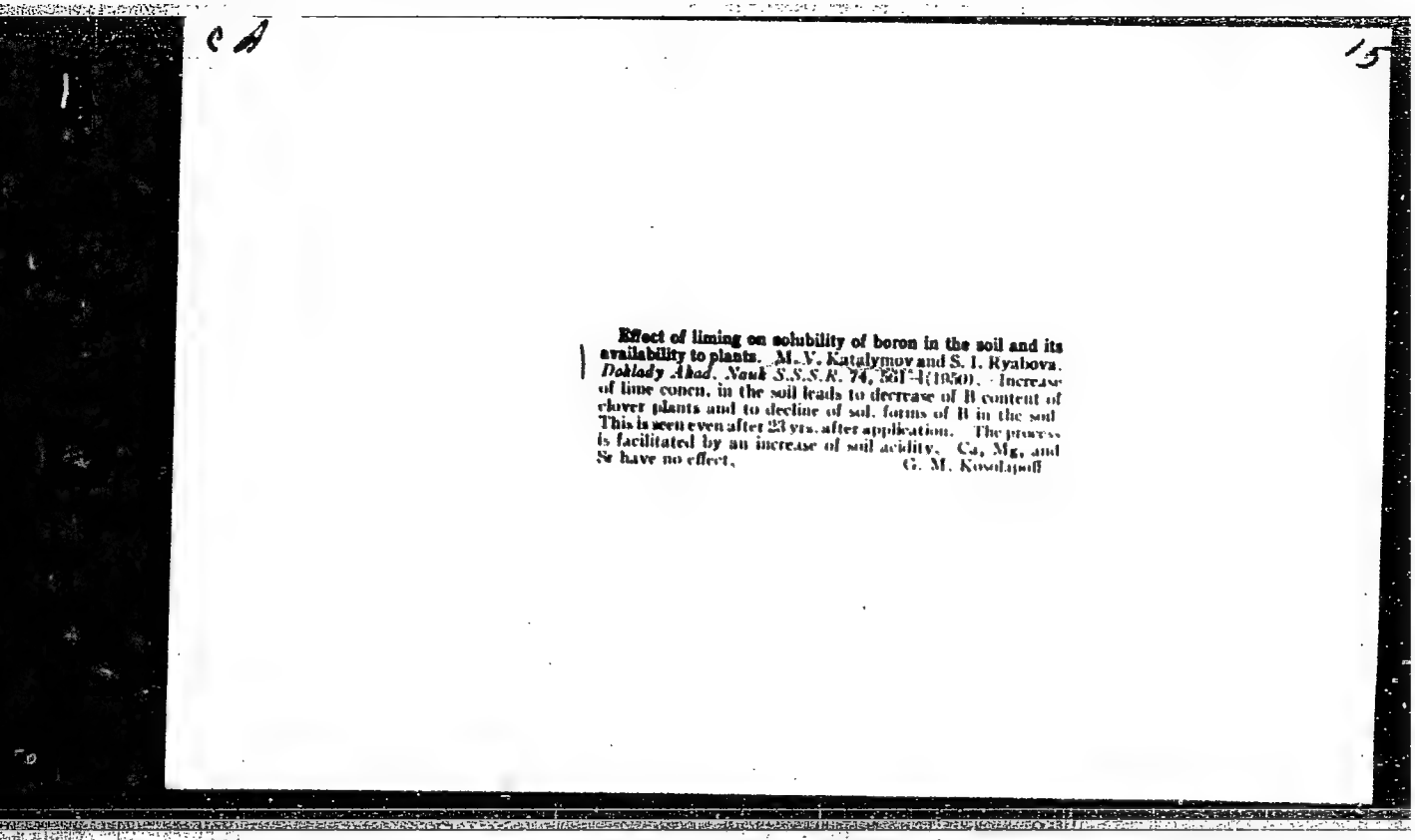
PROCESSES AND PROPERTIES INDEX

31

Influence of Soil Acidity on Intake of Manganese by Plants. (In Russian.) M. V. Katalymov. *Doklady Akademii Nauk SSSR* (Reports of the Academy of Sciences of the USSR), new ser., v. 71, Apr. 21, 1950, p. 1091-1096.

Above problem was investigated for oats, potatoes, flax, and clover. The acidity of the soil (heavy podzol) was controlled by addition of acid and basic nitrogen fertilizer. Tabulated data reveal that, the higher the acidity of the soil, the larger the amount of Mn which can be utilized by the plant.

METALLURGICAL LITERATURE CLASSIFICATION



CA

15

Effect of liming on solubility of boron in the soil and its availability to plants. M. V. Katalymov and S. I. Ryabova. *Doklady Akad. Nauk S.S.S.R.* 74, 581–4 (1950). Increase of lime concn. in the soil leads to decrease of B content of clover plants and to decline of sol. forms of B in the soil. This is seen even after 23 yrs. after application. The process is facilitated by an increase of soil acidity. Ca, Mg, and Si have no effect.
G. M. Kosolapoff

CA

13

Causes of decreased availability of boron to plants after liming of soil. M. V. Katalymov. *Doklady Akad. Nauk S.S.S.R.* 76, 913-6(1951); cf. C.A. 45, 1711c. The decreased availability of B after liming appears to be caused by formation of esters of boric acid with polyatomic alcs. of the soil; these are much more stable in neutral or weakly alk. media than in acid media. While mustard plants grow very poorly in unlimed peat, owing to the acidity of the latter, addn. of lime does not aid the growth materially and plant development was abnormal (flowers formed, but seed formation did not occur), indicating B deficiency. Addn. of further amts. of B led to normal growth. Similar results were obtained with chernozem soil. If these organo-B compds. are ashed and then introduced into the culture, the plant development is normal, indicating the correctness of the above-stated hypothesis. Such oxidation of the org. matter leads to a 3-fold increase of the amt. of water-sol. B in chernozem, 2-fold for podzol and krasnozem; in all cases addnl. borates were effective in bringing about normal growth. G. M. Kosolapoff

CA

15

The manganese content of fertilizers. M. V. Katalymov. *Doklady Akad. Nauk S.S.S.R.* 77, 447-8(1951).—The av. values of Mn (in mg./kg.) are: manure with straw 868; peat (deep lying) 326; peat (surface) 43; manure ash 1777; peat ash 980–1087; ash from coal 205; ash of birch 21270; ash of oak 14706; dolomite meal 108; chalk 58; unslaked lime 194; phosphorite meal 321–620; bone meal 55; apatite superphosphate 143; slag 33536 (from Kerch plant); sylvinite, carnallite, and related minerals 18–70; saltpeter 0 urea 0; ammonium sulfate 42; Ca cyanamide 15.
G. M. Kosolapoff

1951

KATALYMOV, M. V.

USSR/Chemistry - Soils 21 Sep 51

"Fixation by Soils and the Washing Out of Boron Fertilizers," M. V. Katalymov, Sci Inst of Fertilizers and Insectifungicides imeni Samoylov

"Dok Ak Nauk SSSR" Vol LXXX, No 3, pp 413-415

Boron when added to soil in the form of boric acid does not become fixed to the soil and washes out readily.

210T38

KATALYMOV, M. V.

KATALYMOV, M. V. - "Dynamics of the Mobility of Bristly Foxtail Grass in Sod-Podzolic Soils in Connection With Its Liming and the Effectiveness of Boracic Fertilizers." Sub 16 May 52, Soil Inst, Acad Sci USSR. (Dissertation for the Degree of Doctorates in Agricultural Sciences)

SO: Vechernaya Moskva January-December 1952

Katalymov, M. V.

Trace-element fertilizers. M. V. Katalymov [illegible] vaniyu po Prikl. Khim. Akad. Nauk [illegible] Khim. Nauk, Sbornik Rabot 1955, 325-30; cf. C.A. 50, [illegible] The effects of B, Cu, Mn, Zn, Co, and Mo on plant and animal growth were [illegible] content of these elements in various vegetation [illegible] given. Expts. were made by spraying [illegible] soln. [illegible] B [illegible] on red clover while in flower. It was found that the seed yield was increased nearly twofold. The [illegible] marked results were obtained by spraying [illegible] acid soln. on beets, turnips, and cabbage. Not only was the quantity of yield increased but the quality of the yield improved. Martin Berdertin

(1)

USSR/Agriculture - Plant physiology

Card 1/1 Pub. 22 - 46/51

Authors : Katalymov, N. V., and Shirshov, A. A.

Title : The content of Co in plants, soil and fertilizers

Periodical : Dok. AN SSSR 101/5, 955-957, Apr 11, 1955

Abstract : Because of the high Co nutritional values in the feeding of farm animals, the authors investigated the Co content in various plants, soils and fertilizers. Results obtained are described. Tables

Institution : The Ya. V. Samylov Scientific Inst. of Fertilizers and Insecto-Fungicides

Presented by : Academician S. I. Vol'fkovich, September 4, 1954

Content of trace elements in crops of agriculture

J

Country : USSR
Category : Soil Science. Mineral Fertilizers.

Abs. Jour. : Ref Zhur-Biologiya, No. 12, 1953, No. 53395

Author : Katalymov, M.V.
Institut. : Academy of Sciences USSR
Title : The Forms of Mineral Fertilizers and Their Effectiveness

Orig. Pub. : V sb.: Vopr. geol. agron. rud. M., AN SSSR, 1956, 24-34

Abstract : The author compares the types of mineral fertilizers produced by domestic industries and selects the most promising from among them. Ammonium nitrate is the basic nitrogen fertilizer for the present and near future, despite the fact that it is only 60% effective in comparison with physiological alkaline fertilizers on acid soils. It has to be neutralized and granulated. Calcium nitrate has to be run off in acid soils. Ordinary P_c, particularly in granular form, is on the whole the most advantageous phosphorus fertilizer in the

Card: 1/4

J

Country :
Category :

53395

Abs. Jour. :

Author :
Institut. :
Title :

Orig. Pub. :

Abstract : USSR. At the same time the output of double superphosphate, precipitate, ammophos, thermophosphates and especially phosphorite fertilizers must be increased. Potassium chloride, comprising 3/4 of the entire assortment of potassium fertilizers will remain as the basic type. The following have been noted among the microfertilizers: Superphosphate containing boron, borodutolite fertilizer, pyrite cinders. The following have been noted among the magnesium fertilizers: dolomite, magnesium

Card: 2/4

Country :
Category :

Abs. Jour. : J

Auther :
Institut. : 53395
Title :

Orig. Pub. :

Abstract : sulfate, and magnesium silicates. The general evaluation of the effectiveness of these fertilizers, based on their correct application under the conditions prevalent in the USSR has been presented in the following table:

Agricultural product	N	P_2O_5	K_2O
Cotton wool	12 100	6 70	2 40
roots			

Card: 3/4

Country :
Category : J

Abs. Journ. :

53395

Author :
Institut. :
Title :

Orig. Pub. :

Abstract :

Continued

Agricultural product	N	P_2O_5	K_2O
Sugar beet	16	10	6
sugar	120	80	60
Flax (fiber)	2.5	2	1.5
Winter wheat, rye	25	25	4

Card: -- V.V. Prokoshev

4/4

J-29

KATALYmov M.V.

USSR/Physiology of Plants. Mineral Nutrition I-2

Abs Jour : Ref Zhur-Biologiya, No 2, 1958, 5650

Author : M. V. Katalymov
Inst : Not given
Title : On the Content of Microelements in Plants Depending on their Specie Characteristics and on the Soil Properties

Orig Pub : V zb.: Mikroelementy v. s. ph. i meditsine, Riga, AN, Latv SSR, 1956, 81-88

Abstract : The content of microelements (B, Mn, Cu, Zn) in plants depending on their specie characteristics, and the effect of soil conditions on the content of microelements in plants of a single specie were studied in two field and one vegetative experiments at the Dolgoprudnaya Agrochemical Station. The content of B ranged from 2 to 72 mg per

Card 1/5

ween 1.5 to 8.5 mg, with the greatest content in bean seeds, sunflower (8-8.5 mg), in the roots of forage beets (7.1 mg), and less in wheat straw (1.5 mg). The Zn content ranged from 16 to 65 mg with the maximum in seeds of wheat (65 mg), sunflower seed (52.5 mg) and in the leaves of sugar

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mg with the

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USSR/Physiology of Plants. Mineral Nutrition I-2

Abs Jour : Ref Zhur-Biologiya, No 2, 1958, 5650

Abstract : greatest quantity in the seeds of flax (20.5 mg), the green mass of lupine and in the leaves of potato (18 mg), and the smallest in wheat straw (3mg) and the roots of turnip (4.2 mg). The content of Zn ranged from 20 to 240 mg with a maximum in the leaves of edible beets (240 mg), mustard straw (231 mg), semisugar and forage beets (224 to 210) and potato leaves (200 mg), and a minimum in potato tubers (20 mg), the roots of turnips (30 mg) and cabbage (35 mg). The content of B, Mn, Cu, Zn in clover, barley, flax, and mustard changed considerably depending on soil conditions. The smallest content of B was noted in plants grown on surface peat and lime podzol agrillaceous soil. The greatest quantity of Mn was received by plants from podzol agrillaceous soil and the

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I-2

USSR/Physiology of Plants. Mineral Nutrition

Abs Jour : Ref Zhur-Biologiya, No 2, 1958, 5650

Abstract : smallest from syerozem. The smallest quantity of Cu was received by the plants from peat soils.

Card 5/5

KATALYMOV, M.V.

USSR/Chemical Technology. Chemical Products and Their Application -- Fertilizers, I-6

Abst Journal: Referat Zhur - Khimiya, No 2, 1957, 5063

Author: Katalymov, M. V.

Institution: Academy of Sciences USSR

Title: The Problem of Minor-Element Fertilizers

Original Publication: Issledovaniya po prikl. khimii, Izd-vo AN SSSR, 1955, 325-336; Khim. nauka i prom-st', 1956, 1, No 2, 155-159

Abstract: A review. Importance, application methods and efficacy of minor element fertilizers containing B, Cu, Mn, Zn, Co, Mo, I, according to data of experimental work in USSR and abroad. Bibliography, 7 references.

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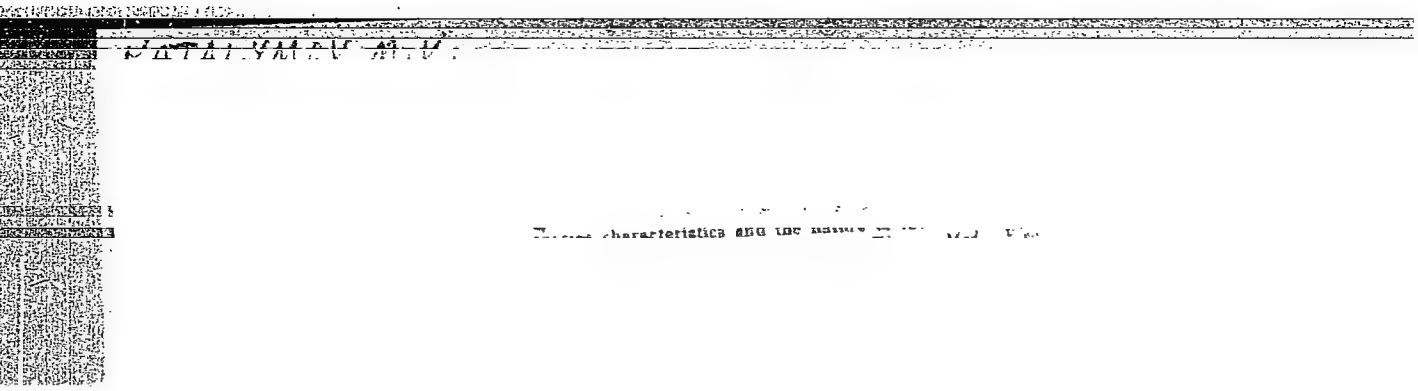

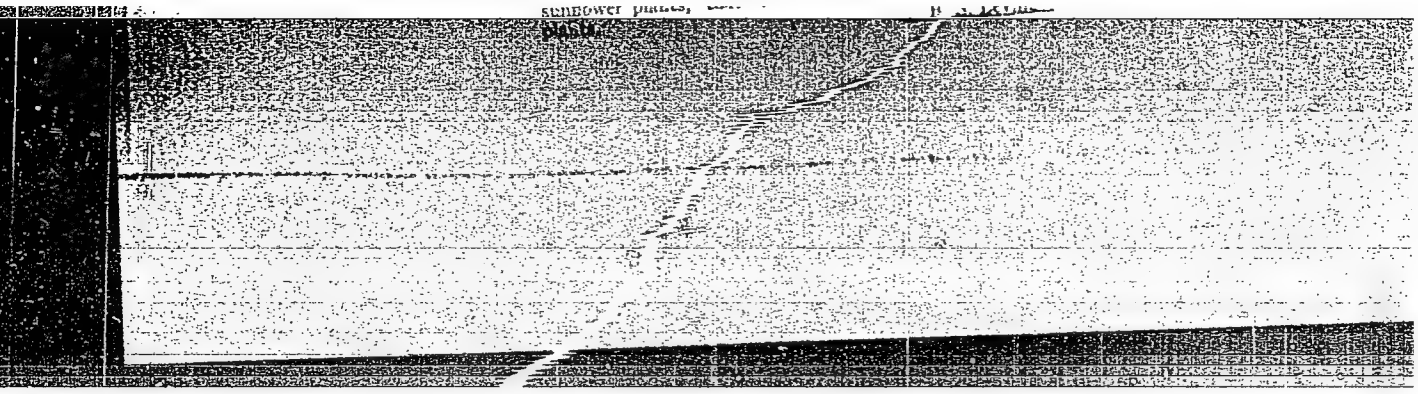

KATALYMOV, Mikhail Vasil'yevich; FEYGEL', L.V., redaktor; KORNEYEVA, V.I., tekhnicheskiy redaktor.

[Trace elements and their role in increasing crop yields] Mikroelementy i ikh rol' v povyshenii urozhainosti. Moskva, Gos. nauchno-tekhn. izd-vo khim. lit-ry, 1957. 63 p. (MLRA 10:6)
(Trace elements)

KATALYMOV, M.V.

USSR/Soil Science - Mineral Fertilizers. J.

Abs Jour : Ref Zhur - Biol., No 15, 1958, 67961

Author : Katalymov, M.V.

Inst : Scientific Institute of Fertilizers and Insectofungicides.

Title : Some Achievements and Contemporary Problems of the Agrochemical Study of Microelements.

Orig Pub : Udobreniye i urozhay, 1957, No 10, 40-47.

Abstract : The results are given of investigations of microelements conducted by the Scientific Institute of Fertilizers and Insectofungicides and other experimental institutions. In the Institute the content of B, Cu, Zn, Mn, and Co of various soils was measured. Information is given on the forms in which they are encountered in soils and on the microelement content of harvests of various kinds of crops grown under identical conditions on thick chernozem.

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USSR/Soil Science - Mineral Fertilizers. J.

Abs Jour : Ref Zhur - Biol., No 15, 1958, 67961

Of all the micro-fertilizers, the most significant for the agriculture of the USSR are boron and copper. The soils and plants which react to application of microfertilizers are mentioned, and their effectiveness is described; the results are given of several filed experiments conducted on experimental stations and on kolkhozes. Froms of boron fertilizers likely to be more widely used are: doulbe and simple boron superphosphate, precipitated magnesium borate, boron-datolite fertilizer, and boric acid. POt experiments done in the Institute with thermoborates demonstrated that in them the B is in a form assimilable by plants soluble in 2% citric acid). Research is also being done on frits (glass micro-fertilizers). Copper fertilizers are applied in the form of pyrites cinders in doses of 2.4-4 kg./hectare of copper, i.e. about one half of what had been previously recommended. According to data of All-Union Scientific Research Institute

Card 2/3

USSR/Soil Science - Mineral Fertilizers. J.

KATALYMOV, M.V.; RYABOVA, S.I.

Mobile boron content of soils and methods for its determination. [with summary in English]. Pochvovedenie no.8:53-58 Ag '58. (MIRA 11:9)

1.Nauchnyy institut po udobreniyam i inskeofungisidam.
(Minerals in soils)

PEYVE, Ya.V., glav. red.; ALIYEV, G.A., akademik, red.; ABUTALYBOV, M.G., prof., red.; BERZIN, YA.M. [Berzins,J.], akademik, red.; VINOGRADOV, A.P., akademik, red.; VLASYUK, P.A., akademik, red.; VOYNAR, A.O., prof., red.; DROBKOV, A.A., prof., red.; KATALYMOV, M.V., prof., red.; KOVAL'SKIY, V.V., red.; KOVDA, V.A., red.; KEDROV-ZIKHMAN,O.K., akademik, red.; LEONOV, V.A., akademik, red.; PETERBURGSKIY, A.V., prof., red.; SINYAGIN, I.I., red.; CHERNOV, V.A., prof., red.; CHANISHVILI, Sh.F., red.; SHKOL'NIK, M.Ya., prof., red.; SHCHERBAKOV, A.P., kand. sel'khoz. nauk, red.; VENGRANOVICH, A., red.; DYMARSKAYA, O., red.; KLYAVINYA,A [Klavina, A.], tekhn. red.

[Use of trace elements in agriculture and medicine; transactions] Primenenie mikroelementov v sel'skom khoziaistve i meditsine; trudy. Riga, Izd-vo Akad.nauk Latviiskoi SSR, 1959. 706 p. (MIRA 14:12)

1. Vsesoyuznoye soveshchaniye po mikroelementam. 3d, Baku, 1958. 2. Chlen-korrespondent Akademii nauk SSSR (for Peyve, Kovda). 3. AN Azerbaydzhanskoy SSR (for Aliyev). 4. AN Latviyskoy SSR (for Berzin). 5. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk im. V.I.Lenina (for Vlasyuk, Kedrov-Zikhman). 6. AN Belorusskoy SSR (for Leonov). 7. Chlen-korrespondent Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk im. V.I.Lenina (for Sinyagin, Koval'skiy). 8. Chlen-korrespondent AN Gruzinskoy SSR (for Chanishvili).

(Trace elements) (Biochemistry) (Agriculture)

KATALYMOV, M.V.; CHURBANOV, V.M.

Agricultural and chemical evaluation of precipitated magnesium borate as a boric fertilizer. Khim.prom. no.7:604-605 O-N '59. (MIRA 13:5)
(Magnesium borate) (Fertilizers and manures)

KATALYMOV, M.V.; CHURBANOV, V.M.; RYABOVA, S.I.; KNYAZEVA, M.A.; SEZEMOVA, Z.S.; PALILOVA, N.I.; GORLENKO, M.V.

Studying different ways and methods for applying trace element fertilizers. [Trudy] NIUIF no.164:53-54 '59. (MIRA 15:5)
(Trace elements) (Fertilizers and manures)

KATALYMOV, M.V.; UNANYANTS, T.P.; VOL'FKOVICHA, S.I., akademik, red.; ORLOVA, I.A., otv. red.; GONCHAROV, N.G., tekhn. red.

[Production and use of trace elements in the U.S.S.R. and abroad] Proizvodstvo i primenenie mikroudobrenii v SSSR i za rubezhom. Pod red. S.I.Vol'fkovicha. Moskva, Vses. in-t nauchn. i tekhn. informatsii, 1960. 37 p. (MIRA 15:6)
(Trace elements)

KATALYMOV, Mikhail Vasil'yevich; VINOGRADOVA, K.G., red.; SPERANSKAYA, A.A., tekhn.red.

[Trace elements and their role in increasing crop yields] Mikroelementy i ikh rol' v povyshenii urozhainosti. Izd.2. Moskva, Gos.nauchno-tekhn.izd-vo khim.lit-ry, 1960. 74 p. (Plants, Effect of minerals on) (MIRA 13:10)

KATALYMOV, M.V., otv.red.; KOROLEV, L.I., red.; SOKOLOV, A.V., red.; TURCHIN, F.V., red.; UNANYANTS, T.P., red.; DOLGOPOLOV, M.I., red.; GRIGOR'YEVA, A.I., red.; BALLOD, A.I., tekhn.red.

[Manual on mineral fertilizers; theoretical and practical aspects of their use] Spravochnik po mineral'nym udobreniiam; teoriia i praktika primeneniia. Moskva, Gos.izd-vo sel'khoz. lit-ry, 1960. 551 p. (MIRA 14:1)
(Fertilizers and manures)

KATALYMOV, M.V., prof.

On the 75th birthday of O.K. Kedrov-Zikhman. Pochvovedenie no. 5:116-117 My '61. (MIRA 14:5)
(Kedrov-Zikhman, Oskar Karlovich, 1885-)

ASKINAZI, D.L.; VOL'FKOVICH, S.I.; KATALYMOV, M.V.; PETERBURGSKIY, A.V.; SOKOLOV, A.V.; SHEDEROV, S.G.; SHKONDE, E.I.

In memory of Oskar Karlovich Kedrov-Zikhman. Pochvovedenie no.7:126-127 Jl '64. (MIRA 17:8)

KATALYMOV, Mikhail Vasil'yevich; VASIL'YEVA, S.G., red.

[Trace elements and trace element fertilizers] Mikroelementy i mikroudobreniia. Moskva, Khimiia, 1965. 330 p.
(MIRA 18:5)

KATAMADZE, E. I.

KATAMADZE, E. I.

"Effect of "Embossing' on the Growth and Development of Grapevines." Cand Agr Sci, Sakar Zonal Experimental Station of Viniculture and Viticulture, Acad Sci Georgian SSR, Tibilisi, 1954. (KL, No 8, Feb 55)

SO: Sum. No 631, 26 Aug 55-Survey of Scientific and Technical Dessertations Defended at USSR Higher Educational Institutions (14)

USSR/Cultivated Plants - Fruits. Berries. M

Abs Jour : Ref Zhur Biol., No 18, 1958, 82547

Author : Katamadze, E.I.
Inst : -
Title : The Effect of Pinching-Off on the Yield of Grape

Orig Pub : Vinodeliye i vinogradarstvo, SSSR, 1957, No 6, 26-28

Abstract : The effect of pinching-off on the yield of commercial grape varieties Tsolikouri and Tsitska was studied during 1948-1953 at Sakarskaya Experiment Station in Western Georgia. Only the slight pinching-off (removal of 20-25% of the leaves) during the period of the pause in the growth of the shoots (the end of July - the beginning of August) increased the yield. The later the pinching was carried out after the pause in the growth of the shoots, the lower was its effectiveness. Intense pinching-off (removal of up to 50% of the leaves) lowered the yield by 12-17%, expecially with carrying it out during the period

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USSR/Cultivated Plants - Fruits. Berries. M

Abs Jour : Ref Zhur Biol., No 18, 1958, 82547

of intensive growth. Deterioration in the quality of the yield took place along with this. -- N.A. Golikova

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